

Memorial

To

MRS ERMINIE

A. SMITH



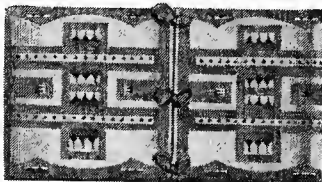
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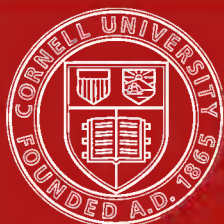


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Emmeline A. Smith

PHOTOGRAPH FROM WHICH WAS PAINTED THE PORTRAIT
PRESENTED TO VASSAR COLLEGE.

In Memoriam

MRS. ERMINNIE A. SMITH

MARCELLUS, N. Y., APRIL 26, 1837

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Dedicated to

**THE SMITH MEMORIAL PRIZE FUND ASSOCIATION,
AND TO ALL WHO HOLD**

THE WOMAN

IN LOVING REMEMBRANCE.

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INTRODUCTORY.

THERE are several reasons why this little book presents itself, and trusts to be kindly received :—

That some of the many friends of Mrs. ERMINNIE A. SMITH, who have desired a copy of the Memorial Address which was delivered at Vassar College on the occasion of the presentation of the Prize Fund, might be gratified ;—

That others, who have frequently requested further particulars of Mrs. Smith, with her relation to and an account of the “Æsthetic Society,” could find here this information ;—

That between these covers, bound up with a short record of Mrs. Smith’s life and death, would be preserved some of her shorter writings that might otherwise be lost, together with a few “Echoes of the Æsthetic Society,” written by or relating to her (the limit and character of this sketch not permitting selections of the wit and humor contributed to the Society by well-known writers), which the “Daughters” and friends accustomed to attending the Society receptions will be glad to recognize ;—

That here also should be discovered recent beautiful contributions from loving friends, who desired to add their flowers of poesy to this garland, woven in loving remembrance ;—

Lastly, — perhaps I might say principally, — it is a souvenir for those associated with me, who with brave hearts surmounted obstacles, overcame fatigue, and did not cease from their labors until their work did follow them.

By turning these leaves, they may gather Pansies and Rosemary, with which to refresh their memories as the past recedes, while thoughts of the absent one and the happy days with her still linger, and in the contemplation of her life will see “How easy it is for one benevolent being to diffuse pleasure all around her, and how truly is a kind heart a fountain of gladness, making everything in its vicinity to freshen into smiles.” They will realize that though she sleepeth, her influence remaineth ;— for

The *good* that *women* do lives after them.

SARA L. SAUNDERS-LEE.

THE BRUNSWICK, BOSTON,
June 9, 1890.

MRS. ERMINNIE A. SMITH

AND

THE ÆSTHETIC SOCIETY.

WHAT constitutes the greatest difference between one person and another, considered either as intellectual or as moral beings," according to Dr. Abercrombie, "is the culture and discipline of the mind." Though the advantages are very great of having always lived in a refined and intellectual atmosphere, of constantly being in the way of seeing works of art, of hearing able criticisms expressed on all subjects, yet without the appreciative soul and the love of knowledge for its own sake a person can never be truly cultured, though such environments may give a superficial culture, which is sometimes mistaken for the real thing. It is difficult to define the exact qualities which constitute a cultivated mind. It is helped, however, in forming, by the thoughts and sayings of the world's greatest thinkers, and has therefore a wide range of ideas and a lofty ideal, and is necessarily raised above the pettinesses and trivialities of life. Agreeing with that writer who says, "Though no one can acquire the creative power of genius, yet every one can train himself to appreciate its products, and that the capacity for

was an added world of pleasure; and besides all this, the mind was, to a greater extent, raised above the circumstances of life, and could find satisfaction in itself to a degree little realized before; while it was inculcated that it is the application of culture to every-day life that is invaluable in giving that "added grace" which so beautifies our relationship with mankind.

Thus, in the spring of 1876, when the earth teemed with new life, sprang into existence the "Æsthetic Society," which eventually attracted more attention than any like association throughout the Union, and which had its birth in the cause that opened college doors to woman, or resulted in annexes,—the higher education of woman! Unlike academic halls, this society was peculiar in combining with the study of science, literature, and art, the study of how to make home beautiful and happy, practical lessons in the reception and entertainment of guests, and an initiation into the secrets of true hospitality. These, though not in the curriculum, were acquired by observation and practice; for it has been very truly said, "Cultured women are more than usually prone to take pleasure in the beauty and order of their houses, and to love flowers and animals, and everything which the typical Eve should bring about her to dress and keep the garden of home."

Uncultured women may do valuable work in the world, (and as of other things there are degrees of culture,) yet "cultured" women are in sympathy with a far larger num-

ber of their fellow beings, and therefore their powers of usefulness are greatly increased. The mind being filled with more interesting topics, it rarely occurs to them to discuss their neighbors,—they are far removed from all the wretched scandal in which little minds delight,—consequently in conversation their influence is always elevating. Lavater tells us, that “he who sedulously attends, pointedly asks, calmly speaks, coolly answers, and ceases when he has no more to say, is in possession of the best requisites of a man;”—and this is also equally applicable to woman.

To possess the power of being an interesting and intelligent listener, to cease when she had no more to say, were things Mrs. Smith had early learned, and a true estimate of her powers kept her from expressing opinions—though she sought information—on subjects with which she might be inadequately acquainted. She was free, too, from that dogmatic narrow-mindedness which is the inheritance of the ignorant, and had acquired the blessed wisdom of holding her judgment in abeyance on subjects of which our finite minds can never know the whole. By the wide range of her ideas she was delivered from prejudice and intolerance, and respected the opinions of others, however much they might differ from her own.

With a large power of appreciation of all that is true and beautiful in literature, nature, and art, she had a capacity for appropriating knowledge on a variety of subjects, a power of using that knowledge aright, and a talent for im-

parting that knowledge ; while all felt the charm which culture bestows, touching every detail of life, giving a refining sensibility to every action. She also had sympathy with, and a comprehension of, the different phases of human life around her, and a keen insight into those higher laws which govern our universe.

Mrs. Smith was indeed the heart, soul, body, and strength of this Society. It originated with her, and, alas ! ended with her ; for no one has felt sufficiently strong to lift her mantle. It was impossible not to love our President, or "Mother," and, though a general favorite, those loved her most who knew her best. She was made to be loved, and received it as unconsciously as the "sunlight drinketh dew ;" and from this central sun "the Daughters of the *Æs-thetics*" drew and dispensed the genial warmth that made the hospitality of this Society so enjoyable, and made those of the highest talent feel honored to deliver a composition, or to lecture, before such appreciative people.

Our field of research was wisely a wide one ; for though it is true a woman may become *learned* when a special subject is taken up to the exclusion of others, and pursued with more or less amount of success, and though such a course may be necessary to the woman studying a profession, it will not make her cultured.

It must not be supposed that by appropriating knowledge on a variety of subjects a desultory flitting from one subject to another is meant ; but culture implies an enlightened mind

on all topics of present interest. Strengthening and elevating as is a more exclusive research into the sterner field of knowledge, yet, as woman's time for study is as a rule limited, she must be content with a broad outline on many of the more abstruse subjects. If, however, she has had a certain amount of mathematical or classical training, she will be cultivated in a deeper sense, for it will give her that power of close reasoning, and those elements of exact thought, without which it is hardly possible to comprehend science.

To speak of the studies that occupied the members of the Society would not be of general interest; so I will proceed to describe the more public "Reunions," which were exclusive, and for which the cards of invitation were eagerly sought.

These receptions occurred monthly, in Jersey City, on Saturday, during the winter or social season, and, being held in the afternoon, a twelve o'clock luncheon was provided at Mrs. Smith's residence in Jersey City for those taking part in the day's programme, and others specially invited, oftentimes amounting to more than a hundred people. The drawing-rooms each side of the entrance, and running the entire length of the house, had their walls lined with cabinets filled with geological and mineral specimens, fossil fishes, petrifications, rare pieces of spar, arsenic, and silver ore; tourmaline, malachite, lapis lazuli, rhodonite, and some unequalled examples of agate and precious gems, beside

curious treasures from the animal and vegetable kingdoms. Pottery and other curios—Indian implements and weapons, trophies from Europe and elsewhere, together with rare prints and engravings—were scattered or hung about; and, adding to all this different musical instruments, the rooms were at once museum, parlor, and music-room.

Here could be seen the Indian costume of doeskin, richly embroidered with beads and hung with little hammered-silver plates, the pair of moccasins, the wampum belt, and the head covering which Mrs. Smith wore at the ceremony of adoption into the Tuscarora tribe;—here were seated for luncheon those whom Emerson calls “the chief ornament of a house,—the guests who frequent it;”—and here was given the liberal education in the arts of hospitality to the “Daughters,” who were instructed upon these occasions “to make themselves generally useful and entertaining,” and, after the refreshments, to accompany the friends to the edifice where were assembled those invited only to the literary part of the entertainment, which consisted of music, recitations, “art talks,” original essays or poems by eminent people, discussions on some leading topic of the day, or the exhibition of some new discovery or application of science.

These receptions became so popular, that it was soon evident that the prescribed limits of private parlors were inadequate, and the lecture-room of the Lafayette Reformed Church was kindly placed at Mrs. Smith’s disposal. Meanwhile, Mrs. Smith, although of another denomination, with

that wide-reaching charity which was one of her characteristics, was so active in procuring funds for the completion of the new Methodist Episcopal Church adjoining her residence, that the bread she had cast upon the waters was returned to her, when the building was completed, in an invitation to use it for her meetings, which by this time had outgrown and overflowed the lecture-room.

This was occasioned by the "Æsthetics" having consented to increase their membership, while instituting yearly dues to defray the expenses of an extended series of lectures; and a society originally composed of twelve members — shortly after increased to sixteen young women students — expanded until it filled a church!

"This is a wonderful organization, and I do not think it can be equalled in the United States," exclaimed Professor Morse of Peabody Institute, the first time he saw the number of friends assembled, at the invitation of Mrs. Smith, to enjoy the literary and musical treat prepared by the Æsthetics under her direction. And when one thinks of the guests there collected, — clergymen of different creeds, United States officials, governors and statesmen, presidents of colleges and professors, representatives of scientific societies at home and abroad, — American and foreign artists, musicians, and *litterati*, together with the cultured of society, — can it not be truly said, "There *was* one woman capable of forming an American salon"?

Some one has written that "the greatest pleasure of life

is to know how to admire rightly," and this sign of a cultured mind Mrs. Smith possessed. Not necessarily need a woman have an advanced education to obtain this pleasure, nor is it necessary for her to have more than the average amount of advantages which travelling in different countries and viewing life under different aspects gives, still a correct taste for the fine arts can hardly be acquired by book learning, and the more opportunities she has had for acquiring that correct taste, and acquainting herself with the greatest works of men's hands, the wider will be the sense in which she is cultured.

These opportunities Mrs. Smith wisely improved in the several years she had passed abroad educating and studying with her sons, appreciating that "Adaptability plus Opportunity is God's call to any position in life." In addition to travelling, she had attended lectures from some of the most celebrated scientists; had made explorations nearly two thousand feet under the earth, in the mines of Saxony; had proved her courage, and continued her researches, by descending in the only means of descent — a bucket — many hundred feet in the Hartz Mountains; and as she had many interests and an open mind, all knowledge she gathered was assimilated and stored for future use. Furthermore, her own contributions to the knowledge we have of the Aborigines are second to those of no student in that important field; so, since "Intellect is the atmosphere of the soul," she was greatly appreciated by men of letters and science.

Even after this interval of time, it is impossible to write calmly of our sorrow, when, despite all efforts to retain her, we realized she had heard the summons of the King, and would soon pass to the other shore, where one of her sons stood with the angel band to sing her "Welcome Home."

Having no own daughters, her kind and sorrowing husband granted the request of the "Æsthetic Daughters," and permitted them to remain with and minister unto their beloved "Mother;" but to the regret of many, circumstances prevented their often availing themselves of this privilege, so that Miss Churchman and Miss Ella Dudley were the ones most with her, and have now the happy assurance that their loving care made more comfortable her journey to the tomb.

Mrs. Smith's restoration to health was expected by her physicians, until her death. Only a week preceding this event, at a consultation it was decided she would recover; and it was not until an hour before her death, when the heart was attacked with paralysis, that her condition was considered serious.

A woman with less energy and conscientiousness of purpose might still be living, but Mrs. Smith, after the commencement of her ill health, frequently rose from a sick-bed to attend some meeting, give a lecture, or write scientific articles, and the epitaph lightly proposed for himself by another historian is equally applicable to her,—"She died learning."

On the day of the funeral, the intimate friends, the "Daughters," and delegates from Sorosis and the various scientific societies of which Mrs. Smith was an officer or member, gathered early with the bereaved family at her late residence. There, in one of the long drawing-rooms where her hospitality had been dispensed amid sounds of joy and gladness, her body lay in peaceful repose, amidst the evidences of her busy life and explorations into the realms of Nature. But the Soul, "the Knowing," "the rich star-travelled stranger, who here sojourneth only for a purchase," had passed to the Unseen, where there were no more doubtful questionings regarding Prehistoric Time; no further secrets of the Palæozoic Age to discover; — in the twinkling of an eye all mysteries had been made clear!

Thou art not here, but well we know,

"Where'er thy spirit dwells, she dwells in full
Regality of nature! crowned with power,
With purity clothed, and girt with grace.

. . . All truth

Thou holdest now, all knowledge.

. . . On other shores

The Kings of Thought salute thee. Thou hast past
The river of Judgment; and the saintly land
Of the elect immortals guests thee now."

Among the numerous flower offerings was a large bank of roses, from which arose a floral shaft surmounted by a wreath. Upon the white silk ribbon which tied the wreath was written, "With fondest love from thy Daughters." She

whom we loved, rested, in the glory of her womanhood, so calm and happy, embowered among the profusion of flowers always so welcome to her because "they talked to her," that it was difficult to realize, that never again would we hear her strengthening words of faith, hope, and love.

As the hour approached for the services at the church, the friends at the house took a last silent farewell, the casket was closed, and they joined the cortege that conveyed it to the Lafayette Reformed Church, which was crowded to overflowing, there being, according to the newspaper reports, upward of twelve hundred people, making the largest attendance ever witnessed in Jersey City at the funeral of a lady.

The sad procession entered the church in the following order: the Rev. Dr. Duryee, pastor of the church; casket borne by the pall-bearers, Rev. Cornelius Betts of the Bergen Reformed Church, Rev. J. Howard Suydam of the Park Reformed Church, Prof. J. S. Newberry, President of the New York Academy of Science, Prof. Thomas Eggleston of Columbia College, Rossiter Johnston, and Albert U. Todd; members of the family, the "Daughters," and the delegates from Sorosis and other societies; and, as the casket was borne slowly up the aisle toward the altar, Mrs. Clementine Lasar Studwell sang the beautiful hymn, "Asleep in Jesus."

After the family and chief mourners had taken the seats reserved for them, Dr. Duryee began the impressive services which affected many to tears. Mrs. Studwell, Mrs. Flor-

ence Rice-Knox, and Miss Clara Stutsman sung the solos in "I Know that My Redeemer Liveth," and "Beyond the Smiling and the Weeping," with exquisite pathos, and the sympathetic blending of their voices in the duets was touching in the extreme; while those who heard the eloquent eulogy, purely unconventional, which was delivered by the pastor, will never forget it.

Those who desired were given the opportunity to view the remains, which then were carried to the New York Bay Cemetery, and interred after a brief ceremony at the grave.

"Thou wert a love-gift heaven once gave to earth,
And took again, because unworthy of thee. . . .
. . . Heaven is happier now that thou art there,
Sweetest of human spirits, and for us
Enough the blessing to have known thee here.

.
Yet one more look ; farewell, thou well and fair !
All who but loved thee shall be deathless : naught
Named, if with thee, can perish. Thou and death
Have made each other purer, lovelier seem,
Like snow and moonlight. Never more for thee
Let eyes be swollen, like streams with latter rains.
Thy soul hath passed out of a bodily heaven
Into a Spiritual. Rest !"

Time passed. When the year had rolled away, the "Daughters," with several of Mrs. Smith's personal friends, met at her grave on the anniversary of her death, bringing flowers and plants with which to decorate her resting place, and as a labor of love themselves transplanted their offerings to the soil which covered her burial plot, so that it soon became a beautiful parterre of bloom and color, although the day was dull and dreary; the light, gentle rain which fell making it seem as though Nature, realizing what a friend she had lost, sympathized and wept with them.

The suggestion was here made to raise some lasting monument other than stone—a handsome granite shaft having already been erected by her bereaved husband—to her memory, and a committee was selected, comprising Mrs. E. F. C. Young, Mrs. J. F. McCoy, Mrs. Robert Gilchrist, Mrs. F. J. Mallory, Mrs. Marcus Beach, Mrs. Robert G. Lyle, Mrs. Rossiter Johnston, Mrs. "Jennie June" Croly, Mrs. Henry Herrman, Mrs. Oliver B. Bunce, Mrs. C. Lasar Studwell, and "the Daughters," to further this object.

With the exception of one or two whose time was otherwise engaged, all invited to join gladly accepted; and at the first meeting called,—at which Mrs. Young was elected President, Mrs. McCoy, Vice-President, Mrs. Herrman, Treasurer, and Mrs. Sara L. Saunders, Secretary,—many plans were discussed and declined, but it was finally decided to create a "Prize Fund," which should be presented to some college for women; and to raise the necessary

amount of money, it was proposed to give two musical and literary entertainments, one to be held at the residence of Mrs. Herrman in New York City, the other at the "Jersey City Athletic Club House," which the club kindly offered for this purpose. The majority of the committee were ladies of Jersey City, who entered heartily into the work; so the reception given there under their auspices was very brilliant.

It is difficult to particularize where all cheerfully and earnestly assisted; yet the Association felt so greatly indebted in many ways to their generous and charitable treasurer, Mrs. Henry Herrman, who by her services and the use of her house had very materially strengthened their efforts to raise the desired amount, that, to show their appreciation, a vote of thanks was tendered her at one of their meetings.

It was a happy hour when this band of loyal friends found, in a comparatively few months from the gathering at the grave, that their labors were crowned with success; for they had realized over a thousand dollars, the interest of which would become an annual prize, or prizes, for the best work in Mineralogy or Geology at Vassar,—which was the college selected to perpetuate Mrs. Smith's memory.

Upon the second anniversary of Mrs. Smith's death, about twenty delegates, chosen to accept the invitation of the President, Rev. J. M. Taylor, D.D., to visit that institution, met at the Grand Central Depot, where was in readiness a special car to carry them to Poughkeepsie.

Arriving at the College, they were conducted to the suite

of rooms placed at their disposal, and, removing the traces of the dusty car-ride, were escorted to one of the parlors beautifully decorated with daisies, — the Vassar flower, — and masses of daffodils and buttercups, surrounding an easel upon which rested a life-like portrait of Mrs. Smith, which was to be presented with the funds to the College. Here the reception committee introduced them to the President, Trustees, Faculty, and invited guests, who gave them a cordial welcome; and after a few moments of conversation, President Taylor, accompanied by Mrs. Young, President of the Association, led the way to luncheon, which was laid in another parlor fitted up for the occasion.

At its conclusion, the Secretary of the Association presented the picture and legal documents to Vassar in a memorial address, responded to by Dr. Taylor, who accepted the gifts on behalf of the College, with a few brief but graceful remarks, congratulating the Association upon the form their memorial had taken, and thanking them for choosing Vassar College as the medium through which Mrs. Smith's memory should be perpetuated. The remainder of the afternoon was passed in visiting the library, students' apartments, museums, laboratory, and observatory; and in strolling through and admiring the beautiful and extensive college grounds, until it was time for departure, when, joining in a parting cup of tea, and expressing their appreciation of so delightful a visit and hospitable welcome, the delegates returned to New York.

The presentation having been made at the period for the annual Commencement exercises, the students were unable to be present; so, at the request of the President and Faculty, who desired the young ladies to know something regarding the woman whose memory was worthy to be retained through the prizes bearing her name, the Memorial Address was again read by the Secretary before the assembled College in the chapel, February 6, 1889.

These details concerning the Prize Fund may not be of interest to the general reader, yet will be appreciated by those who took an active part in the work, as they have many memories clustering around each step that was taken, and it will be gratifying to them to know what have been the beneficial effects of this Prize Fund upon the work of the College, and who in this first year of its usefulness have been the recipients of its rewards.

By vote of the Faculty, the award was arranged in two prizes, one First Prize of \$30, and a Second Prize of \$20. For the year's course 1888-89, the First Prize was received by Miss Cora L. Scofield of Washington, Iowa, who was very even and excellent in all branches of the required work, and acknowledged by all to lead the class. It was deemed just to make a division of the Second Prize between Miss Bessie V. Gaines of Mossing Ford, Virginia, and Miss Sara C. Gates of Bay City, Michigan, because Miss Gates had an advantage over Miss Gaines in also being a student in the department of Chemistry and Physics; but

being nervous, and part of the time rather an invalid, her work was not so evenly good. The excellent microscopic sections of fossil corals, and other geological specimens, made by the class in their regular work, are now on exhibition in the Museum, and make a fine show.

Thus it is shown that Mrs. Smith's influence is ever widening, — in the one year reaching from the Middle States both West and South, — and her usefulness continues beyond the grave; how useful, it remains for these young ladies and their successors in obtaining the prizes to demonstrate, and, judging the future by their past work, there will be no limit to the unconscious influence exerted by Mrs. Smith's memory.

One of the beautiful flower-pieces seen at Mrs. Smith's funeral was an open book made of white roses, across the pages of which was formed in colored flowers the word "Finis." But it was not so, for we now see that "*Here* only *beginneth* the end, — the end of the old life, the beginning of the new. For all life's ends are beginnings, till its final end begins the Endless!"

"Death means reunion with the deathless ; range
With our translated elders ; consciousness
Enlarged of the Eternal Spirit, unmarred
By bodily needments ; life at one with God ;
And faith's high promises confirmed by fate."

MEMORIAL ADDRESS

DELIVERED AT VASSAR COLLEGE, JUNE 9, 1888.

MR. PRESIDENT, FACULTY,* AND STUDENTS OF VASSAR COLLEGE, — The ladies of Jersey City and New York, friends of the lamented ERMINNIE A. SMITH, desiring to establish a perpetual memorial of that brilliant and noble woman, decided this could be best accomplished by creating a Prize Fund for young women, and selected your honored institution as its recipient.

Not the least of the good deeds in Mrs. Smith's useful life was the stimulus she imparted to the young girls whom she loved to gather around her, and whom by her magnetic and sympathetic nature she incited to high and worthy aspirations. It is therefore fitting that her memorial should be of a character calculated to continue her work, and in the line which most interested herself.

We have therefore made it an annual prize of money for work in Mineralogy and Geology.

In the town of Marcellus, New York, in the year 1837, was born to Joseph Platt (one of the earliest settlers of that town) a daughter. This child was christened Erminnie Adele Platt.

As she grew, although of a genial, fun-loving, frolicsome disposition, Erminnie was, in her peculiar way, devoted to the acquisition of knowledge, possessed of a very inquisitive turn of mind, and never satisfied until she had discovered the very root of the subject that interested her. So it is not strange, that, with the scientific tastes inherited from her father, combined with her love of open-air sports, she early developed a taste for Botany, Mineralogy, and Geology, — always searching for something curious in Nature, and gathering specimens for a collection, the commencement of that one which, before her death, had grown to be one of the valuable private collections in this country. She was a happy child, given a hammer and a stone to peck at, and may therefore be the cause of the saying, "Give the baby the looking-glass and hammer to keep it quiet!"

She used to gather beech leaves and fasten them in the tiny pools of water until they had taken on the lime incrustations; and in her cabinet may be seen a few of these still bright leaves from the history of a merry, sunny-tempered little girl.

At fourteen, Erminnie entered Miss Willard's school at Troy, where she closely applied herself to study, and graduated when seventeen years old. During vacations, the venerable Dr. Arthur, father of the late Ex-President, gave her instructions in Greek and Latin.

Within a year after leaving school, Miss Platt married Simeon H. Smith, afterward Finance Commissioner of

Jersey City. In that she could continue after marriage her intellectual pursuits, she was singularly fortunate in her family relations.

When her four sons were old enough, she went with them to Europe, and placed them at school. They studied, and she studied; and the bright enthusiastic mother was the most unwearied learner of them all. How can we speak too highly of the blessings of a cultured mother,—a mother who will give the young minds that “bent,” and encourage their tastes for high pursuits which will give them something to live for beside pleasure-seeking and amusements, and who will put everything before them to give that love of knowledge for its own sake of which she so well knows the value! Her boys finished their school years without ever having been separated from their mother; and there is something very fine and touching in the thought of the mother and boy learners, all working together gaining knowledge.

She entered the School of Mines at Freiburg, taking lessons in Mineralogy, Geology, and the use of the blow-pipe. The solitary woman student was such a wonder in that region, that the German newspapers noted the fact, and called her “the North American lady.” She was the first, and it is said the only, woman who has attended the school.

The Polarization of Light claimed her attention at Oberstein, Germany, where so large a quantity of the secondary

gems in the world are cut, but where special attention is given to the cutting of stones for lenses and scientific purposes. The mills here are very, very old, the industry dating back to the Middle Ages.

At Strasburg, she studied Crystallography, and received private lessons from the Professors in the University, in French and Literature; and at Heidelberg, devoted her time to German and its literature, with the famous Professor Otto.

She also visited the coast of the Baltic Sea, to investigate the Amber Fisheries; and among her treasures is a roundish lump of amber, imprisoning in its shining yellow depths the form of a tiny, sprawling pre-historic lizard.

In 1876, at the entreaties of some young friends, Mrs. Smith organized a class for the study of music, literature, and the sciences, under the name of "The Daughters of the *Æsthetics*," using that word in its *true* meaning.

This society became so popular, that it soon numbered over five hundred members, (beside the sixteen "Daughters,") and it became necessary to make the entertainments more public. These receptions not only elevated the intellectual tone of Jersey City society, but brought as their guests many of the brilliant minds in the worlds of science and belles-lettres, from both sides of the Atlantic, and drew together audiences which were unrivalled. On these occasions it was the pleasant duty of the "Daughters" to assist our "Mother" in entertaining her guests.

Mrs. Smith was an active working member of Sorosis, from its commencement until the time of her death. "Jennie June" (Mrs. Croly), then President, speaks of the days on which Mrs. Smith read papers as the "*red* letter days of Sorosis."

Through geological researches, and from her childhood home being near one of the Indian Reservations, Mrs. Smith early became interested in Indian life and habits, and collected a volume of quaint Indian Mythology and Folk-lore, which was published, with illustrations, by the United States Bureau of Ethnology. These studies in Indianology preserve for us a record of a people now almost vanished from the earth, and will greatly assist archæologists to trace out the history and origin of the red man in America.

It was not until 1880, however, that Mrs. Smith was appointed as a scientific explorer (with a stated annual salary) for the Smithsonian Institute at Washington, and detailed to study the traits, habits, and peculiarities of the Six Nations,—composed of the Tuscarora, Mohawk, Onondaga, Iroquois, Oneida, and Seneca tribes of Indians.

At intervals, for some years, she resided among these Indians, who, although dwelling in comfortable houses, have customs practised only by these tribes, many of which customs, when with them, Mrs. Smith adopted. She lived, ate, drank, slept, and enjoyed herself as they did, and gradually learned their dialects, until she had gained a mastery of their language; but to continue in practice, and to assist in com-

piling the dictionaries, usually had one or two Indians living with her, and so endeared herself to the tribes that the Tuscaroras, with rites and ceremonies, adopted her as a daughter, giving her the name *Kă-tcĭ'-tcĭs-tă'-Kwăst* (Kacheche-sta-quaws), meaning "Beautiful Flower."

Beside compiling Indian dictionaries, she contributed largely to various scientific journals, and lectured extensively on Indian Culture and Ethics.

Mrs. Smith's studies embraced not only mineralogy, gem-cutting, and crystallography, but ethnology, archæology, and anthropology as well.

I will not weary you by giving a full list of learned societies of which Mrs. Smith was an honored member. Unanimously elected honorary member of the British Archæological Society, she was also a member of the similar society in America. She was the *first* woman elected "Fellow" of the "New York Academy of Sciences," and the *only* woman ever appointed an officer in the "American Association for the Advancement of Science," being, at the time of her death, Secretary of the Section of Anthropology.

In 1885 Governor Abbett appointed Mrs. Smith "Commissioner of the Department of Woman's Work," to represent the State of New Jersey at the New Orleans Exposition.

At the meeting of the Society for the Advancement of Science at Ann Arbor, in August, 1885, Mrs. Smith worked far beyond her strength, and laid the foundation of the

disease that was so soon to end her days. When remonstrated with in regard to the completion of a *second* paper she wished to present, (on the ground that it would keep until next year,) her face assumed a serious and earnest expression as she replied, "I never leave things for *to-morrow*. *Now* is *my* word! *Next year!* why, who knows what may be before *next* year?" Did she already hear the still, small voice of God calling her? In a few months the summons was answered, and she—was not!

During this Ann Arbor meeting, Mrs. Smith was the guest of Mr. and Mrs. Trowbridge at Detroit. After her departure, they found she had left as a souvenir in her room a satin banner with these words, signally in keeping with the spirit of her life:—

"Sleep sweet within this quiet room,
Dear friends from whom I part,
And let no mournful yesterdays
Disturb thy quiet heart;
Nor let to-morrow scare thy rest
With dreams of coming ill.
Thy Maker is thy changeless friend,
His love surrounds thee still.
Forget thyself and all the world;
Put out each feverish light;
The stars are watching overhead;
Sleep sweet! good night! good night!"

These friends never met again; it was the *last* good night.

It may be said that Mrs. Smith died in harness; for while reading a paper on "The Significance of Flora to the Iroquois," at Sorosis, a severe hemorrhage rendered her unconscious. Her illness was of about six weeks duration, commencing with hemorrhage of the brain, and developing into paralysis of the heart, while she seemed merely to be living upon what her physician described as her determination to finish her book; for almost her last words were, "If I only had time to put what I know on paper!"

She was then engaged in completing an Iroquois Dictionary, but was never able to resume work. A talented Indian, whom she had trained to be her assistant, familiar with her plan, is now employed at the Bureau of Ethnology completing the unfinished task.

Such was the *public* life of the woman whose memory and good works we would perpetuate; but who can do justice to the private life and womanliness which so endeared her to her friends?

Mrs. Smith was fair of complexion, robust in figure without superfluous flesh, and of medium height (looking taller than she really was). She dressed in perfect taste, and one would not think she had a hobby, unless it be that excusable in the mother of four bright boys. Nothing about her manner suggested the pedant, although she stood so high among the scientific people of the world; for in the social circle she never obtruded herself, but was ever retiring and modest.

You would have called her a bright, healthy, pleasant woman, and felt cheered by seeing her; but could you draw her into conversation would have found her one of the most charming and entertaining talkers, and could not fail to be impressed with the earnestness, amounting to enthusiasm, which was magnetic in its influence,—as earnestness always is.

It is written that “out of the abundance of the heart the mouth speaketh.” Yet there *are* feelings too deep for utterance, and when they find expression in words, their intensity is past, for, at the best, words are but cold; therefore—“Little shall I grace my cause in speaking for myself,” but will present the expressions of others more skilled.

Mrs. CROLY, Ex-President of Sorosis, says:—

“She was a clear and captivating speaker, presenting her subject with force and directness,—rising often into eloquence, but never sinking below the high-water mark at which she invariably held the closest attention of her audience. Her frankness of manner, her honesty, her unvarying cheerfulness, were as characteristic as her generosity and kindness of heart.

“She had the gift, rare among men or women, but especially among women, of universality. She was as much at home with the prince as the peasant, with the most distinguished as with the most obscure, and she valued each one for what she found in him, not for that which surrounded him.

“Of herself she gave freely, without thought of return, meeting much treachery and ingratitude, but also drawing about her a remarkable circle, and adding to it men and women of distinction from abroad as well as at home, who added their notes to the symposium of which she was the inspiring centre.

“Mrs. Smith was a woman of extraordinary gifts in many different directions, for with all her talents and powers of mind no more loving wife and mother, no truer or more devoted friend, ever lived. Those who knew her best and were most intimately associated with her know well how impossible it will be to replace the bright mind, the warm heart, the sympathy with all that was noble, the scorn of all that was despicable.”

At the Ann Arbor Reception, Professor W. C. RICHARDS, Doctor of Philosophy, breaks into verse : —

To-night, far down the nineteenth century,
We, in the name of Science, gather here
To mark her sweep and scope so far and free,
And cast her horoscope with vision clear, —

Homage with warm and willing breath to bring
To one who in her happy self combines
Science and soul. O how your bard might sing,
Could he but fuse their fervor in his lines !

Our honored guest, from childhood to this hour,
Has humbly lain at generous Nature's feet,
Toyed with her charms, thrilled with her mystic power,
And from her lips drawn lessons pure and sweet.

By field and copse, by woodland, vale, and rill,
She sipped the wine of science with delight ;
With its rich draughts, our little cups we fill
From her brimmed beakers, poured for us to-night.

Our little cups we lift, we touch, we drain
In her applause, and thank her for her wine ;
A woman we were *proud* to meet again, —
Mistress of Sciences, not one, but *nine*.

Self-taught in Indian language, as her own —
Or Europe's polished speech — she brings to book
Strange Tuscarora dialects, — task alone
For whose eclipse in skill we vainly look.

A true Cornelia to her sons — she led
Their feet to Wisdom's wells, and with them drank ;
By her own zest their thirst she fired and fed,
Nor let their mental grip her own outrank.

Hail, model mother ! noble scholar, hail !
Thou real Minerva of our modern days,
Long be it, ere thy strength and zeal shall fail ;
And long — thy growing honors ours to praise.

Major POWELL, Superintendent of the Bureau of Ethnology, when told a monument was to be erected to her, exclaimed: "Mrs. Smith has a monument more enduring in her books, — valuable *now*, they will be invaluable to those who come after her."

"She was as merry, sunny, and unaffected as if she had not pursued studies which," Horatio Hale said, "in Indianology *alone* would make any *man* famous."

But listen to the voice of her pastor, the Rev. Dr. DURYEE, that man of God who had known her well for fifteen years, and from whose eyes rolled the big tears as, in voice broken by grief, he delivered her funeral oration. He says: —

"Mrs. Smith was my personal friend. To me she came in her troubles and her joys, and we had many talks upon that faith in Jesus which is the stay of the Christian. Just before her death, I took her hand and asked her if she believed. She replied, 'that, although she had entertained doubts at times, all had been removed, and she was firm in the faith.'

"She has never refused to participate in a good work. In all my conversations with her, sometimes lasting for hours at a time, I have known her to speak but once in a harsh, and certainly never in an unkindly manner, of any person.

"She would come to me for sympathy and counsel, and little knew she gave more than she received; for her hopefulness and patience would renew my strength in the work for Christ.

"At one time she said to me, 'God has given me gifts, which I intend to use in the greatest measure to lift myself and others to a higher degree of knowledge.' Brilliant, talented, and generous, she had no serious faults. I believe, in saying so, I but voice the echo of the hearts of one of the widest circles of friendship woman has ever known."

Mr. PRESIDENT, — As the representative of that wide circle of friendship, and in the presence of delegates from some of the Societies, while presenting to you this check and legal document, I have a request to make. Will you kindly grant a place upon the walls of this beautiful College, on which shall rest this portrait of our friend now presented? If after going hence we are permitted to look upon the scenes of earth, it will make her happy to look upon the bright, studious faces, and to be surrounded by the warm hearts of young women, as when in life they sought her. Do not give it place alone for the value of the services rendered by her to the cause of science, and your appreciation of the example she set to her fellow women of America by devoting her life so largely to the field of scientific research; but more especially take to heart the influence she exerted over the young girls and women in elevating their minds and directing them in the search for the true, noble, and good, so that the "Smith Prize" may carry with it, in the memory of its winners, the loving face of her to whom it is a lasting monument.

In thanking you for your kind attention, and before saying farewell, permit me to repeat the poem, composed and read by Dr. Duryee at Mrs. Smith's funeral.

We mourn not those who drink Life's genial wine,
And while their pulses feel the warmest thrill
Lay down the goblet at a call divine
For richer feasts — which nobler longings fill.

Nor tears for those who, like the guarded flowers
When deepest hued, are from companions torn,
As walks the Master in his loving hours
Seeking the rare which may His home adorn.

We weep not when with sudden wrench the gem
Is from unseemly setting forced apart,
To sparkle on a monarch's diadem,
Or flash its rays on Love's delighted heart.

But constant tears for those who here must quaff
Life's bitter dregs, or, fading long, must stay
To meet the Winter, while with scornful laugh
A mocking world sweeps by upon the way.

Not thee we mourn, O friend ! as fall our tears,
Thine is the rest, the glory, and the gain ;
We grieve that we, more lonely, walk the years
And weaker turn to earthly toil and pain.

But brighter are the skies since thou art there,
Warmer the welcome — after parting tears.
The farewell that we breathe uplifts the prayer
That soon may dawn for us God's golden years.



OFFICERS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,

HELD AT ANN ARBOR, MICH., AUGUST, 1885.

APPENDIX.

THE group on the opposite page comprises all but five of the officers of the Ann Arbor Meeting of the American Association for the Advancement of Science held August, 1885. Resolving the group into two lines, standing and sitting, for convenience, and beginning with those seated, passing from the bottom to the top of the page, we have, —

<i>Permanent Secretary,</i>	. . .	Prof. F. W. PUTNAM, Cambridge, Mass.
<i>General Secretary,</i>	. . .	Dr. C. S. MINOT, Boston, Mass.
<i>Past-President,</i>	. . . .	Dr. T. STERRY HUNT, Montreal, Canada.
<i>President,</i>	. . . . .	Prof. H. A. NEWTON, New Haven, Conn.
<i>Past-President,</i>	. . . .	Prof. JAMES HALL, Albany, N. Y.
<i>Secretary of Section G,</i>	. .	Mr. W. H. WALMSLEY, Philadelphia, Pa.
“	“	<i>H,</i> . . Mrs. ERMINNIE A. SMITH, Jersey City, N. J.
“	“	<i>D,</i> . . Mr. C. J. H. WOODBURY, Boston, Mass.

Those in the standing line, taken in the same order are : —

<i>Vice-President of Section I,</i>	Mr. EDWARD ATKINSON, Boston, Mass.
<i>Secretary of</i>	“ <i>C,</i> Prof. F. P. DUNNINGTON, University of Va.
<i>Vice-President of</i>	“ <i>C,</i> Prof. N. T. LUPTON, Nashville, Tenn.
<i>Vice-President of</i>	“ <i>A,</i> Prof. WM. HARKNESS, Washington, D.C.
<i>Secretary of</i>	“ <i>A,</i> Prof. E. W. HYDE, Cincinnati, Ohio.
<i>Vice-President of</i>	“ <i>D,</i> Prof. J. BURKETT WEBB, Ithaca, N. Y.
<i>Secretary of</i>	“ <i>I,</i> Mr. C. W. SMILEY, Washington, D.C.
<i>Vice-President of</i>	“ <i>G,</i> Prof. S. H. SAGE, Ithaca, N. Y.
“	“ <i>H,</i> Rev. J. OWEN DORSEY, Washington, D.C.
“	“ <i>F,</i> Prof. T. J. BURRILL, Champaign, Ill.
<i>Secretary of</i>	“ <i>F,</i> Prof. J. A. LINTNER, Albany, N. Y.

The officers not included were unable to attend at the hour appointed, owing to other engagements.

It is with pleasure I make acknowledgment to Major J. W. Powell, Director of the Bureau of Ethnology, and to Prof. F. W. Putnam of the Peabody Institute, — the Perpetual Secretary of the “American Association for the Advancement of Science,” — for their kind assistance; and particularly to Mr. Eugene M. Smith (Mrs. Erminnie A. Smith’s youngest son), who, having possession of his mother’s manuscripts and notes, generously placed them at my disposal.

The results of Mrs. Smith’s *labors* may be found in her Dictionaries, and at the Smithsonian Institute. The papers here presented were intended for the *Æsthetic* meetings, and occasionally read elsewhere, and although prepared with her usual care, were somewhat of a pastime; for with this Society she sought relaxation from her more serious duties, and in imparting to her “Daughters” the knowledge she so readily acquired, found the rest she so much needed. The article entitled “The Significance of Flora to the Iroquois,” will have an additional interest from being the paper she was reading to Sorosis when touched by the hand of death.

This memorial being a “love-token,” the beautiful womanliness of Mrs. Smith’s character and social life is delineated rather than that of the scientist — save as the two blended; — and those who would have other particulars, are referred to Appleton’s Annual Cyclopædia for 1886, and the Cyclo-

pædia of American Biography, where among people of note Mrs. Smith takes her proper position as belonging to science, and where the statistics of her birth, life, works, and death are ably tabulated. There, however, they will be confronted by the statement that Mrs. Smith was born in 1836, while herein her birth is stated as having occurred in 1837. The eminent encyclopædist prepared the sketches under difficulties, and undoubtedly with great care, so that it is with reluctance this correction is made; but as it comes directly from Mrs. Smith's family and her sister, Mrs. Little, of Ravenswood, Ill., this date should be considered reliable.

Mrs. Smith's particular branch of Indianology was a thorough study of the language and folk-lore of the *Iroquois* Indians, better known as the Six Nations, who have become widely dispersed. The Tuscaroras are at Lewiston, N. Y.; the Senecas, at Cattaraugus, near Buffalo, N. Y.; the Oneidas are separated, some being at Oneida, N. Y., (where the reservation is practically destroyed,) at Green Bay, Wis., and at St. Thomas, Canada; the Cayugas are scattered among the other tribes; the Mohawks are in Canada, as they followed the fortunes of the British after the Revolution; and the Onondagas are at their reservation near Syracuse, N. Y.

She was peculiarly fitted for this task, having been born and brought up within three miles of this last reservation. In fact, she almost grew up with them, associated with the Indian children, learned something of their language, and occasionally attended their celebrations and dances; but of

late years her time has been principally devoted to the Tuscaroras, as heretofore least has been known about that tribe. Besides passing the summers with the tribes, and taking constant charge of two or three Indians that she might become sooner acquainted with their habits and dialects, the chief interpreter of the Six Nations, the interpreter for the Canadian Commissioner of Indian Affairs, many head chiefs, and a number of the most intelligent and best educated Indians were frequently at her home. Mrs. Smith was full of interesting reminiscences of her life in the forest, and had a profound belief in and affection for the Indian people, asserting that among the Tuscaroras were some legendary traces of their Asiatic origin, and intended after her duties for the Bureau of Ethnology were completed to follow up and develop these clues.

Although through the Indians, — according to a poem read before the Æsthetic Society, —

“ Broken on progression’s wheel,
Converted at the point of steel,
And fed on ruin, rum, and rapine,
Horrid deeds of vengeance happen,
At which we lift white hands of wonder,
And sigh and legislate — and *plunder!* ” —

yet these tribes had such faith in her that she acquired over them considerable influence, for (as the poem continues) she —

“ Gained their thoughts, and then their fancy ;
Till, by loving necromancy,
Her thousand deeds of noiseless worth,
Like good seeds hid in the silent earth
Bedewed with tears in grateful showers,
Do fructify in fourfold flowers ;
That even the dusky Indian chief,
Who, brooding o’er his dark belief,
Asks bitterly the bitter question, —
‘ Is robber synonym for Christian ? ’
Why ! he will turn to *her* and listen
With softened face and eyes that glisten ;
And her wise words and silken speech,
Far deeper than loud sermons reach.”

The following letter will show how Mrs. Smith’s Christian influence was felt by one of the Indians who resided with her.

BUREAU OF ETHNOLOGY, WASHINGTON, D. C.,
March 15, 1890.

MRS. SARA L. LEE,

The Brunswick, Boston, Mass.

DEAR MADAM, — In a letter to Major J. W. Powell, Director of the U. S. Geological Survey and of the Bureau of Ethnology of the Smithsonian Institution, you express the desire that I should write you a letter containing some reminiscences of Mrs. Erminnie A. Smith.

To comply with the wish thus expressed is both a duty I owe to the memory of Mrs. Smith, and a pleasure to me who was for more than six years so closely and confidentially connected with her in the capacity of amanuensis, and assistant in all her Indian work.

It was in May, 1880, that I first had the pleasure of making the acquaintance of Mrs. Smith. She had come to the Tuskarora Reservation to study the language, customs, and myths of this people.

Learning that I was conversant with the Iroquoian tongues, she at once engaged me to assist her in making investigations in the line of her work.

The Tuskaroras, one and all, were captivated by Mrs. Smith's womanly kindness, intelligence, tact, and nobleness of soul. During the first week of her stay on this Reservation, she was serenaded at her stopping place, first by one, then by the other, of the two Cornet Bands on the Reservation. On one of these occasions, at which over two hundred of Tuskaroras were present, Mrs. Smith, with appropriate ceremonies, was adopted into the White Bear Gens of the tribe,* being by adoption made the sister of the venerable Head Chief, John Mountpleasant, at whose hospitable house she was a guest. Her name of adoption, which of course is hereditary in this *gens* only, was Ka-tci'-tcis-tā'-kwā'st, "The Beautiful Flower." The bestowal of this name was intended to express the high esteem and sincere regard in which she was held by the tribe.

When Mrs. Smith completed her season's work on this Reservation, she engaged me to travel with her on all of the principal Iroquois Reservations in New York State and Canada.

From this Reservation our first visit was made to the Senecas on the Cattaraugus Reservation in Western New York. Then we went to the Grand River Reservation in Canada, where remnants of the Six Nations now reside, and in after years various other Reservations were visited. On all of these the same welcome for and appreciation of the charming and noble-hearted woman were manifested by the Indians, who were always ready and willing to assist her.

The peculiar and unwritten phonology, the vast and complex systems of verbal and nominal conjugations, and the polysyllabic and

polysynthetic word-forms, common to the grammar of these tongues, are obstacles to the knowledge and acquirement of these languages which would have daunted a less brave, earnest, and gifted scholar.

Mrs. Smith had set herself no less a task than to collect sufficient linguistic material to enable her to master these languages, with all their wealth of forms and peculiarities. The measure of her success in this undertaking is to be estimated by the numerous linguistic and other manuscripts and publications which have emanated from her versatile pen. As a part of this undertaking, Mrs. Smith collected a vast amount of material preparatory to the compilation of nothing less than a grammar and a dictionary of the Tuskarora tongue. One less gifted and less devoted to the interests of science and truth than she, might well hesitate before beginning either of these works ; but, alas ! ere she had the long-cherished pleasure of completing them, the Divine Father called her to rest.

In the six years of our confidential relations, this noble woman never uttered one harsh or unkind word of reproof to me, whatever may have been her provocation so to do ; but among her thousand cares and anxieties she was always the kind-hearted friend, with an ennobling and womanly soul radiant with hope and faith in a blessed immortality.

Yours with respect,

J. W. B. HEWITT,¹

Ethnologist.

¹ Tuskaroran name, *Nā-ka-yēn'-tē'n*, referring to the branched antlers of the buck of the fallen deer, and one of the hereditary sachem names in the White Bear Gens of the Tuskaroras.

THE CUSTOMS AND THE LANGUAGE OF THE IROQUOIS.

FROM the days of the early Jesuit Fathers to the present time, the general history and customs of the Iroquois tribes have been so faithfully chronicled that I may be pardoned if I present these people to you to-day only through their own medium of thought,—their language.

It has been said, "A dead language is full of all monumental remembrances of the people who spoke it. Their swords and their shields are in it; their faces are pictured on its walls, and their very voices sing still through its recesses."

While the above has special reference to languages which have left a written record, it applies with even greater force to our aboriginal tongues, in which nearly every word contains its own little legend. Extremely interesting and important is the word-study of the Iroquois dialects, and through this study alone can we arrive at a correct knowledge of the people who used them.

Vocabularies giving a general interpretation are useless in comparison with a list of dissected words containing original Indian thought and Indian etymology.

Much time, I regret to say, has been lost by those who have analyzed these words simply to trace their resemblance to words from Oriental families. Concerning this branch of investigation, I will venture to quote the conclusion of the celebrated etymologist, Skeat: "Mere resemblance of form and apparent connection in sense between languages which have different phonetic laws or no necessary connection are commonly a delusion, and not to be regarded." A closer study of these dialects proves, in most instances, the fallacy of striving to trace such analogies; e. g., in a late work the Iroquois word *eh-tă' ke*, lit. "on earth," is compared with roots from tongues very far apart said to signify "inferior." The Iroquois word in its applied sense means "down," and in its literal, "on earth," — from *o-he' tā*, field, earth, and *ke*, on, — *o-he' ta' ke*, "on earth;" in no sense does it signify "inferior." Again, Professor Skeat says, "The whole of a word, and not a portion only, ought to be reasonably accounted for." In nearly all Iroquois work we find an almost total disregard of this important rule. Even Père Cuoq, who has done so much through his publications, fails in his *Lexique*, under the portion "Racines Iroquoises," to explain why he retains the incorporated pronouns and prepositions in the list of roots. Why not call them "words," and not "Iroquois roots"? And when these pronouns are dropped in composition, why not explain that fact? Why should he in the verb *I-keks*, "I eat," say that the first *k* is servile, instead

of calling it the first personal pronoun? In Bruyas's Dictionary, also, we find that when roots are given they are not separated from their pronouns, nor oftentimes from their tense signs. In the Dictionary of Père Marcoux he has given as the root the third person singular of the Indicative, but neither of the authors above referred to has adhered to any such rule.

The literal meaning of many Iroquois nouns is extremely interesting. The names of animals in very many cases refer to some peculiarity of the object. The rabbit, *Te-yo-hon-tă-ne-keñ-ha*, "It has two little ears together," alludes probably to the fact that when running the animal keeps its ears thrown backward and close together.

An ox	{ <i>Te-yo-ti-nă-kă-es</i> .
	{ It has (two) long horns.
A cow	{ <i>Te-yoñ-nhos-kwaint</i> .
	{ It is pouch-mouthed.
Rattlesnake	{ <i>Rhu-çûñ-rhûñt</i> .
	{ He has to him a tassel.
Snake	{ <i>Rhu-skwă-na'</i> .
	{ He squirms.
Mule	{ <i>Te-wă-hoñ-tes</i> .
	{ It is long-eared.
Lizard	<i>Tă-tis'-tă-tis</i> , its note.
Hog	{ <i>Wăç'-kwă-rhû</i> .
	{ It immerses its mouth (lips).
Sheep	{ <i>Te-yo-ti-nă-kă-roñ-toñ-hă</i> .
	{ They have two little horns.

The goat and some other animals are named from their odor. Birds generally from their note; as, the yellow-bird, *kă-tci''ka'-u'*; the whip-poor-will, *kwa''-kurh-'ya''n'*. The oriole is called *tcă'-kwi-yu*, meaning "large-thighed;" and the goose, *wă-te-ma''n-nyăks*, "It breaks its voice." Nearly all trees are named from some quality:—

Buttonwood	{ <i>Wă-rhă''nă-tcă''n-wă'-ti.</i> It is a self-smoothing tree.
Poplar	{ <i>Wăt-ă''-rhă''n'-ih-thă.</i> It swings its leaves.
Alder	{ <i>Yă-wa''-rhyăs-kă''-rhă''n.</i> It is hollow-hearted.
Ironwood	{ <i>Rhuhs-na''-'ya''n'ç.</i> He is becoming lean.

Tears translate as "eye-juice," sugar as "tree-juice." The feelings and passions are even more strikingly descriptive:

He is in agony	{ <i>Rhu-lă''-nhă''-kărh-'ya''n.</i> He eats his life.
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A thing that is wonderful is "scalp-raising;" anything tempting, alluring, or captivating, is said to "unhook the mind."

Many homonyms occur, and some cause can generally be discovered to account for them, as in the case of the word "dandelion," which is the same as that for "sturgeon;" for when the flower makes its appearance in the spring, it is the sign for the Tuscarora to take down his spear and go to the capture of the sturgeon. The word *Rhu-nă''-kă''nt*, "wood-

chuck," is applied to the Irishman, who, through Central New York, was first seen engaged in digging canals and throwing up earth for railway embankments. The interpreter for a person, or for a tribe, is sometimes called "Ear." Different peoples are named after the same fashion. The English, who were first seen coming from the direction of the dawn, received that name with the suffix *-ă-kă*, which may be interpreted *ites*; whence we have, —

Nyurh-hăⁿ-ă-kă, It dawns-ites.

The first regular hatchets were imported by the French, and furnished the name "axe-makers" to the people who bought them. The word Boston, which the Iroquois softened into *Wăs-'lăⁿ*, plays no mean rôle in Iroquois nomenclature. As Boston in the early days was an important rallying place for those Americans who first became identified as a nation, the Iroquois added to *Wăs-'lăⁿ* the *ă-kă*, which gives us *Wăs-'lăⁿ-ă-kă*, or Bostonites, which thereafter represented to them the whole American people. The most important of all the dissectible or connotive words are those in which we find buried an extinct custom. Of such we have the word for hunting-dress, *ya'ⁿ-nyă'ⁿ-tă-rhăⁿ-kwă*, "what she puts on wood," from *o-ya'ⁿ-tă*, wood, and *Rhu'-rhăⁿ*, "He is arrayed in;" this alludes, no doubt, to the skeleton framework of wood worn by the hunter, over which he could throw the skin of whatever animal he wished to imitate, as he went forth with his concealed bow and arrows to the chase.

Another study is the Tuscarora, or rather Turquois, word for "warrior," which analyzed yields "bone-bearer." What may this signify? The Indians can no longer give an explanation. The word has become simply denotive. We can only surmise. Did the warriors of that olden time bear away from their conflicts the bones of their fallen comrades? Or did they superstitiously carry about themselves some charmed bone to insure their victory?¹

Another suggestive word is the one for burial-ground, —

Wă-'núⁿñ-nûⁿ-ʒrhûⁿ, They are sunk as to their trunks, —

implying the sitting posture as the manner of burial. I might continue enumerating such modern words as, —

Whiskey, Deformed liquid,

Brandy, Real medicine,

and the word for renown, which is, in one of the dialects, the note of a bird which is constantly calling. But I will pass on to a short study concerning the pronouns in Iroquois, in the hope of obtaining an intelligent opinion upon certain points where I have ventured to differ from accepted forms. Allow me here to observe, that I had already compiled chrestomathies in four of these dialects before having seen any of the valuable contributions of the French missionaries to this branch of Indian linguistics.

¹ Since this paper was written and read, Mr. Cushing has explained that it is still the custom among some Western tribes for the warriors to scrape the bones of their slain, and carry them home for burial.

Two years since, when at Caughnawaga, I obtained, through the courtesy of the Rev. Father Antoine, the Superior of the Order Oblat, and the most obliging missionary, Père Burtin, both celebrated Mohawk scholars, access to the invaluable Dictionary and Grammar of the late Père Marcoux, which books belong to the Mission. Upon examination of this Grammar, I perceived that our principal point of difference was in the use of the pronouns, or rather in their distribution or nomenclature. The Mohawk Grammar of Père Marcoux follows the division made of that dialect by the early French Jesuits into two genders, a noble and an ignoble, — a division of course necessitating a corresponding classification of the pronouns, which, however much it might facilitate a knowledge of the Iroquois to their own countrymen, would be folly for us to accept as a model for English students. The noble, or masculine, gender of these pioneers included men, angels, and God; the ignoble, or feminine, included Satan, demons, evil spirits, animals both male and female, things, and women. Modelled as nearly as possible after the French, and with this sweeping feminine gender, there was consequently no use for an *it*, which is not made to appear, but the indeterminate *on* of the French finds a place.

Mr. Hale, who has followed this classification, expressly says, "There is no neuter form in these dialects," etc. Against such weighty opponents my simple assertion would count for very little; I will therefore present my reasons for assuming my position.

The use of the pronouns and their relations to one another may be considered as the greatest difficulties which the student of the Iroquois dialects has to encounter. The peculiarity of different words requiring unlike pronouns for the same person and number, and the great number of these arbitrarily used pronouns, have undoubtedly greatly puzzled most pioneers in Indian languages. Instead of the two genders "noble" and "ignoble," we find in these dialects the masculine, the feminine, and the neuter genders, — three instead of two. The simple proclitic pronouns of the third person singular are the only words of the singular number that specify the gender of the objects to which they refer.

The simple third person masculine (he) has one form of the prefixive pronoun. It is always incorporated, and in Tuscarora it is *rhă-*, which, in some of the dialects, is aspirated into *ha-*. The sound *rh-* is a simple trill of the tongue; hence *rhă-* is nearly equivalent to *r-r-ră-*, or *r-r-hă-*, or *hă-*.

The simple third person feminine (she) has three forms, *yăk*, *k'-ye-*, or *yă-*; these are always found incorporated.

The simple third person neuter also has three, *wă-*, *kă-*, *yo-*, or *yu-*, which are also always incorporated.

The indeterminate or indefinite pronoun is expressed separately, is indeclinable, and is never compounded with verbs, or their equivalents. The Tuscarora *Să-'kă-nă'* is equivalent to, or is an exact synonym of, the Mohawk *oñ'-ka*, some one, somebody. This pronoun in the singular, when followed by its verb, which has no incorporated objective

personal pronoun, expresses its gender through the verb's incorporated nominative; as, "Some one works" becomes "Some one, *he*, or *she*, works," thus:—

Să-kă'-nă rhu-yu'-nă . . . Some one, he knows.

Să-kă'-nă kă-yu'-nă . . . Some one, she works.

Stă-ă-wă-n'-tă yu-yu'-nă . . . Something, it works.

The last form is used in speaking of animals or senseless things, but never when speaking of persons. The following are examples of the preceding rule, taken from the Mohawk dialect:—

O-thé-non wă-thó'-rătc . . . Something, it makes cold.

Oñ-kă ok Ră-noñ'-wes' . . . Some one, *he* likes.

Oñ-kă-ok ye-noñ'-wés . . . Some one, *she* likes.

O-the-noñ kă-noñ'-wés . . . Something, *it* likes.

Oñ-kă Ră-tkăh'-tos . . . Some one, *he* looks.

Oñ-kă yoñ-tkăh'-tos . . . Some one, *she* looks.

O-thé-noñ wă-tkăh'-tos . . . Something, *it* looks.

This is the only method of expressing in these dialects the indeterminate "*on*" of the French, in words which have the infixed object pronoun. In these words we are obliged, by the very nature of the Iroquois pronouns, to express clearly the gender of the "some one" or of the "something."

Upon pages 21 and 130 of the Grammar of Père Marcoux we find the following: "*On* is the third person indefinite, and is found in all verbs and in all time;" and in the conjugations of that Grammar the feminine *elle*, or *she*, is applied to all words representing things to which in English we

would apply *it*, and the indeterminate *on* is made to serve under exceptions (for with his "Principes Fixes" Père Marcoux is ever consistent) for what I feel convinced is the feminine; therefore I conclude that his feminine pronouns are in fact the neuter, and his indeterminate the real feminine pronouns, which I trust will appear.

Upon page 81, "Essential Remarks upon the Use of Verbs," we find that "the third indefinite should be used in place of the third feminine, out of respect and politeness, when alluding to women."

Thus by an exception he would allow us to use for the feminine what according to our table is the real feminine. Under this remark we find the following examples:—

Ké'-ka''ⁿ n'is'-těñ-hă . . . I see a person, my mother,
for

K-ka''ⁿ nis'-těñ-hă . . . I see *it*, my mother.

Yé'-te-roñ . . . She abides, is at home,
for

Kěñ'-te-roñ . . . It abides, is at home.

(Under the general rule, this last form would still stand for a woman.)

Te-să-ko''-snie ne ro'-sot'-hă . He attends *one*, his grandmother,
for

Te-hó''-snie ne ro'-sot'-hă . . He attends *it*, his grandmother.

Ya'-kă-wěñ-he'-yoñ . . . She is dead,
for

Ya'-wěñ'-he'-yoñ . . . It is dead.

In these examples Père Marcoux enforces the use of his *indeterminate* pronoun (which is our feminine) in the place

of his feminine (which is our *it*), and in reality brings all womankind under their own pronouns, thus separating them from the surrounding of beasts male and female, demons, and things, with which he first environs them.

To what an emergency Père Marcoux was reduced to uphold consistently his division of gender appears in the appended list of idioms, in which he says (page 132), "It has been said in the first part that men alone were of the noble gender, and that the feminine gender belonged to women, animals, etc."

It is for this reason that *Ra-tcin*, "He is male," must be feminized when speaking of animals. Therefore one says, *Kă-tcin*, "She is male." It is necessary to say that the translation which our classification of gender would allow for the latter, rendering the *Kă-tcin* "It is a male," is the correct one.

Again, upon page 56, under "Impersonal Verbs," Père Marcoux remarks that these verbs have but one person to each tense, and that this person is always the third person feminine. For instance, where in the French one would say, *Il pleut*, which in English must be translated *It rains*, not recognizing an *it*, he gives his feminine, which appears on our table as the neuter, thus:—

<i>Yo-ka'ln-no'-rës</i>	. . . . .	It rains.
<i>Yo-ka'ln-no'-rës</i>	. . . . .	It rained.
<i>A'ln-yo-ka'ln-no'-rës</i>	. . . . .	It will rain.
<i>Ka'ln-he'-yoñs</i>	. . . . .	It is dying. (M.)
<i>Wă-ke'-ra'lns</i>	. . . . .	It snows. (M.)

<i>Wûⁿ-tutc</i>	. . . . .	It rains. (T.)
<i>Kă-wî^l-çrhûⁿç</i>	. . . . .	It frosts.
<i>Kă^l-tkwûⁿç</i>	. . . . .	It snows.
<i>Kă-tcă^l-tus^l-thă^l</i>	. . . . .	It makes it cold.
<i>Yû^l-huk^s</i>	. . . . .	It is light.
<i>Wû^l-nătc</i>	. . . . .	It blows.

I will remark here that I have found no impersonal verbs, and that in each of the foregoing examples the full conjugation of each person, in the various moods and tenses, may be given as follows:—

<i>K-kê^l-ra^lns</i>	. . . . .	I snow.	(Lit., pile.)
<i>S-kê^l-ra^lns</i>	. . . . .	Thou snowest.	“
<i>Ră-kê^l-ra^lns</i>	. . . . .	He snows.	“
<i>Ye-kê^l-ra^lns</i>	. . . . .	She snows.	“
<i>Wă-kê^l-ra^lns</i>	. . . . .	It snows.	“
<i>K-û^l-nătc</i>	. . . . .	I blow.	
<i>S-û^l-nătc</i>	. . . . .	Thou blowest.	
<i>Rh-û^l-nătc</i>	. . . . .	He blows.	
<i>Yăk-û^l-nătc</i>	. . . . .	She blows.	
<i>W-û^l-nătc</i>	. . . . .	It blows.	
<i>K-tcă^l-tus^l-thă^l</i>	. . . . .	I make it cool, cool, I cool it.	
<i>S-tcă^l-tus^l-thă^l</i>	. . . . .	Thou, etc.	
<i>Rhă-tcă^l-tus^l-thă^l</i>	. . . . .	He, etc.	
<i>Ya^l-tcă^l-tus^l-thă^l</i>	. . . . .	She, etc.	
<i>Kă-tcă^l-tus^l-thă^l</i>	. . . . .	It, etc.	
<i>K-ûⁿ-tutc</i>	. . . . .	I rain, wet by sprinkling.	
<i>S-ûⁿ-tutc</i>	. . . . .	Thou, etc.	
<i>Rh-ûⁿ-tutc</i>	. . . . .	He, etc.	
<i>Yăk-ûⁿ-tutc</i>	. . . . .	She, etc.	
<i>W-ûⁿ-tutc</i>	. . . . .	It, etc.	

Upon page 69 Père Marcoux says: "The personal verbs may be used impersonally; as, *ioiǎnere*, 'it is good,' from *wakiǎnere*, 'I am good;' *ioteriwison*, 'it is a finished matter,' is a contract, an order, from *wǎ-kǎ-te-ri-wǐ-soñ*, 'I made a contract,' etc.; *io-ñwé-sěñ*, 'it is pleasant,' from *wǎ-k-oñwé-sěñ*, 'I am agreeable,' pleasant, etc.; *io-tsǎ-nit*, 'it is terrible,' from *wǎ-ké-tsǎ-nit*, 'I am terrible,' etc."

The necessity which Père Marcoux here finds for impersonalizing all verbs in order to give to the pronoun he has denominated *she* its proper neuter sense, in a manner divides gender into the three divisions which we have claimed for it. Furthermore, by thus impersonalizing all verbs, causing the *she* always to represent the English *it*, and the indeterminate *on* to represent by exception the *she*, we find ourselves really occupying the same ground, Père Marcoux's arrangement suiting better the understanding of the French student, and the other certainly simplifying the language to the English student.

In the valuable Dictionary of Père Bruyas, no indeterminate *on* is recognized, and that author translates *i-wǎs* by the French *cela*, or *that*; *i-'wǎ*, "*that* is as large as," and says that form is used *de rebus inanim.*

The old Onondaga Dictionary published by Mr. Shea does not in its numerous conjugations give any indeterminate pronouns. From the very best native authority in each one of the dialects, I have received the confirmation of the existence of the pronoun *it*.

On page 399 of Morgan's "League of the Iroquois" we find the statement of the existence of three genders; also in the writings of Mr. Ashur Wright, who was so long a missionary to the Senecas. In conclusion, I will say, that, although I have given these pronouns exactly as I have taken them down from the best native authority in each tribe, yet it is not to be supposed that they are invariably used correctly; the most notable exception being the use of each of the singular third personal pronouns in place of the plural. This has probably arisen from the influence of the facts, first, that Philosophy has never *directly* aided in the formation or establishment of the general laws of language; and, secondly, that in Iroquois there are no fully differentiated nouns which should correctly represent, regardless of sex or gender, a collection or community of persons or things, animate or senseless, that form from common interests, conditions of being, customs, or habitation, or all of these combined, a single being, or individuality, so to speak. I will say that when the force of the singular feminine pronoun *she* is governed, or *restricted*, by the article, or by a noun of multitude, or by a plural suffix, as *ni-yoñ* or *nûⁿ*, or by all of these conjointly, it is, and may then be, employed *with its predicates* as non-wholly differentiated collective nouns whose gender or sex is not necessary to the strength and the clearness of the context in which they occur. The pronoun *ya'* of the Tuscarora, and *ye* of the Mohawk and the other dialects, are, I believe, the only forms of the feminine pronouns used in these curious substantive predicates.

The following examples will serve, with slight or no changes of pronunciation, for any one of the dialects of the Iroquois : —

Ya'' *She*, is Tuscarora.

Ye *She*, is common to the other dialects.

The names, or appellatives, of a tribe, people, or race are "nouns of multitude."

-ti-yoñ' (*-ni-yoñ'*) and *it^{n'}* (*tit^{n'}*) are plural distributive suffixes, having a peculiar force, etc.

Ya''-ta''-krha'' She inhabits, dwells, etc.

Hä''-ya''-ta''-krha'' The people, nation, inhabitants.

Ya''-ta''-krha''-ti-yoñ' The peoples, nations, inhabitants, etc.

Tu'-ä'-kä' Senecas.

Tu'-ä'-kä' ya''-tä'-krha'' Seneca people, the S. people.

Hä'' Tu'-ä'-kä' ya''-tä'-krha''-ti-yoñ' . The various peoples, tribes, etc. of Senecas.

The feminine singular does not include the regular plural, and in correct speaking is not much used. The masculine singular *he* is frequently used, for emphasis probably, instead of the pronoun *she*; the masculine dual and plural are often used when only one man is included.

Rather than be astonished at these apparent inconsistencies, let us wonder that there are so few in connection with the vexed question of pronouns. I have purposely avoided drawing any analogies or comparisons with the construction of other languages, or noting such parallel

coincidences as the use of *sie* in the German for the pronouns *she*, *you*, and *they*, or alluding to the various vicissitudes of the English pronoun. I have taken the language just as I found it, independent of any fixed principles, neither noting nor recognizing any resemblances ; and trusting that this paper will at least illustrate the difficulties in the way of conforming these fundamentally different dialects to the exact rules of any modern language, I offer it to the consideration of those interested in the languages of the American aborigines.



TO A LIZARD IN AMBER.¹

W. A. CROFFUT.

From "Echoes of the Æsthetic Society."

O BRIGHT-EYED swimmer from the unknown seas,
Thou little cousin of the Ichthyosaurus,
What mocking sylph, beneath the cypress trees,
Discarding flies and fleas and bugs and bees,
Embalmed thee for us?

Dwelt thou with man primeval in his lair
On hills Carpathian or desert Lybian?
Or didst thou with the gods Olympus share,
'Mid such high state living unnoticed there,
Thou small amphibian?

Say! didst thou rest on Agamemnon's grave
When Troy's renowned unpleasantness was over,
Or did glad Neptune fling thee from his cave
When sweet Calypso kissed beside the wave
Her Spartan lover?

How different from the death thou livest here
Amid the gay and social, wise and witty,
With dulcet music melting on the ear,
And Poesy's sweet voice discoursing clear,
In Jersey City!

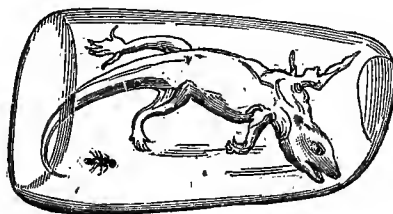
¹ In the cabinet of Mrs. Erminnie A. Smith.

Thy lucent coffin hath a splendid nook :
Above, with saucer eyes and claws retractile,
An owl sits gazing with an anxious look ;
Around are gems ; beneath, that limestone spook,
The Pterodactyl.

Who pinioned thy grotesque and uncouth frame
Within the sunshine of this golden chamber?
Is this the fountain whence the nectar came?
Or is it star-born, — this undying flame
Which men call amber?

Or is this jewel formed of sweet tears, shed
By fair Heliades — Apollo's daughters —
When their rash brother down the welkin sped,
Lashing his father's sun-team, and fell dead
In Euxine waters?

Splay-footed sprawler from the unknown seas,
O tawny cousin of the Ichthyosaurus,
What sportive sister of Hesperides
In the ambrosia of celestial trees
Embalmed thee for us?



THE LIZARD IN AMBER.

AMBER.

THE history of amber illustrates most clearly, not only the slow and tedious growth of civilization, but also the seeming perversity and obtuseness of human nature, which, especially in former times, so retarded the advancement of science.

Exhuming this history from the dim, far distant prehistoric past, we find that, from first being used as fuel by the almost barbaric Northern hordes, among the more refined Southern peoples, amber, like bronzes and their other articles of luxury, took the place of coin, and had its economical and financial import. The oldest written documents that have come to us mention it as one of the chief articles of luxury of the ancient civilized world, — an object of greater request than fine gold. Three thousand years ago it was well known among the ancient inhabitants of Hellas, that amber would attract light bodies, and Thales, one of the seven wise men of Greece, adduced that circumstance in support of his theory that inanimate objects possessed souls ; but two and a half thousand more years passed before it was discovered that it was this selfsame power which, flashing amid the roar of thunder, illuminated the wide canopy of heaven, bound iron to iron, and directed the silently recurring course of the magnetic needle. Tamed and chained as we have considered this all-

pervading element, still, as day by day we are startled by new discoveries, and while awaiting the result of investigations which may transform the night of our great metropolis into day, are we not as puzzled that these problems should have remained so long unsolved, as astonished at their solution?

Americans can complacently pardon the inexplicable fact that Dr. Wall, the English scientist, when succeeding in drawing the electric spark from amber, and hearing the crackling sound accompanying it, compared the two to thunder and lightning, left the discovery of their being identical to our Benjamin Franklin, with his kite and key. Nearly two thousand years ago Pliny wrote that amber was the fossil resin of the extinct *Conifer succinum pinates*, and yet to-day the subject presents many unsolved problems. It is true the modern geological column has assigned it an approximate geological place, and modern chemistry has given it a formula, and its principal scientific value as the source of succinic acid and varnish. A brief review of some established facts in regard to amber, as also some of the erroneous but popularly received ideas which, if unimportant, still remain uncorrected, will perhaps show that for a substance ever popular, coveted as a luxury, even ranking as a gem, both useful and ornamental, with a name in every language expressive of its many qualities, it has scarcely received the attention it deserves.

Probably the oldest of these names is *Bernstein*, or its equivalent in the old Teutonic, from its combustibility. Its two Latin names are *succinum* (juice) and *lyncurium*.

In Persian it is called *Ko'rnbu*, or straw-robber ; in French the trivial name is also *tire depaille*, from its attracting straw.

In Italian, Spanish, and English, nearly the same name is given for amber, signifying cluster or mass. The first Greek name applied to it was a term signifying the rays of the sun, either from the color or some relation to the Sun-god.

The popular Greek name was *Electron*, or the attractor, and thus our substance can boast of having added a word to nearly every language, as even the mother-tongue-loving Germans find *Electricität* more euphonious than their harsher synonym, *Beagsteinkraftigungrüstzeng*.

Italy, Spain, France, Switzerland, and England are given as amber-producing countries ; but it must not be forgotten that under this name are included many fossil resins, the differences in which have as yet been hardly determined. In Lemburg, in the tertiary sandstone, with giant oysters, amber is found in immensely large pieces, clearer than the Prussian, and producing a most delightful odor when burned. In the pitch coal of Bohemia, Rentz found specimens containing sulphur, and also with the foraminifera of the Vienna tertiary. Daubré found amber in Alsace, and Schubert in the Alps, but these were of a different quality from that of the Baltic Sea. But there is no doubt that from Holland, over the German coast, through Siberia and Kamtschatka, even to North America, reached the amber conifer forests ; and from the abundance of amber found in some localities those conifers must have been as productive as is at present

the *Dammara Australis* of New Zealand, the twigs and branches of which are so laden with white resin as to have the appearance of being covered with icicles.

One of the great deposits of amber is in the Hauptvaterland, where, on the plains of Pomerania, the peasants dig in the surface clay for it. In the vicinity of Brandenburg, pieces have been found weighing four pounds. From this abundance of amber in the drift clay, and also from the fact that branches of arbor-vitæ (*Thuja occidentalis*) occur in the Baltic amber, and have been found in the stomach of the mastodon in the United States, Göppert concluded that the Diluvial, or time of the mammoth in the Old World and Mastodon in the New, was the age of amber. This theory has since been entirely disproved.

By far the most celebrated locality for its richness in amber, and one which still possesses great stores of this valuable fossil, is the peninsula of Samland, a portion of Prussia nearly surrounded by the Baltic Sea.

The northern part of this region, which constitutes the promontory of Brüsterort, is very hilly, and the coast banks are often from one hundred and fifty to three hundred feet high. Formerly this was all owned and worked by the German government and watched by gendarmes; all amber found even by the peasants in ploughing being claimed, the finder, however, receiving one tenth of its value. For the piece in the Berlin Museum weighing eighteen pounds, the finder received a thousand dollars. Until ten years ago,

during stormy weather, when the waves were beaten against the banks of this coast, the amber was thrown up in quantities, entangled in the seaweeds, and a hundred hands were ever ready to intercept it with their nets,—a trying occupation, as the roughest storms yielded the richest booty.

Of late years the diving apparatus has been used so successfully that the marine deposit has been greatly diminished, and systematic mining is now carried on inland, where the amber is much finer. The price of amber has increased during the last year, and this advance is caused by the diminution of the yearly product, many of the *Pächters* or renters having thrown up their contracts, and abandoned the business of mining on that account. It was in this famed locality, so favorable for a geological survey, that Professor Zaddach of the University of Königsberg pursued his investigations relating to the birthplace of amber, and his report throws great light on this vexed question. Taking a section of the cliffs where the geological structure is exposed, he finds that wherever the tertiary formation crops out it always comprises two different deposits; the underlying, consisting of thick beds of glauconitic sand, which sometimes attains a height of sixty feet above the sea level, and upon this rest the beds of the brown coal formation, from sixty to one hundred feet thick. Under the greensand lies the so called amber earth, only from four to six feet thick, and underneath this the "*wilde erde*," so called because containing no amber.

Sometimes the beds of greensand are cemented by hy-

drated oxide of iron into a coarse sandstone, which often contains well preserved fossils representing the Tertiary Period; but as this glauconitic sand is a marine formation, it follows that the amber it contains does not lie in its original bed, that is, not in the soil of the old forests in which the amber pines grew, but that the amber was washed into the sea in which crabs and sea-urchins lived.

In the sand of the amber beds are found numerous pebbles or pieces of compact stone, which is evidently the parent rock of the greensand, as it is composed of exactly similar granules of quartz bound together by a marly cement. The amber earth also abounds in fragments of rock known as chalk marl, which contains cretaceous fossils. The same rock is found on the island of Bornholm in the Baltic, and belongs to the Cretaceous.

It is therefore proved that the tertiary glauconitic sand has been made up of the greensand of the cretaceous formations. Therefore the trees yielding the amber resin must have grown upon the greensand beds of the Cretaceous, which then formed the shores of the estuary where the lower division of the Tertiary accumulated.

Zaddach assumes that at that time the coast sank slowly, and, the forest soil being washed by the waves, the amber was carried into the sea. Immediately over these amber-producing strata rest the beds of the brown coal formation, the fossil plants of which differ entirely from the amber flora. Finally, Prussia was laid dry by an upheaval of the rocks,

and this ended for a time the recorded history of the country. Now ensued a new period in the geological history of Samland, when the climate and all the conditions of the country were changed. The mountains of the north, which projected out of the sea, were covered with glaciers that extended down to the water. Icebergs, laden with the finer débris of rocks and blocks of stone, were detached from these glaciers, and drifted to the south, passing over land formed of cretaceous strata. Without doubt there remained a considerable deposit of amber upon this greensand bed of the cretaceous formation where the old forest soil still existed. By the icebergs, this soil was now broken up, and the amber brought down and scattered in every direction.

Thus the fact is explained that amber nests are found in the quaternary deposits over all the plains of Northern Europe.

This epitome of Professor Zaddach's report seems to settle the question as to the birthplace of amber in Germany, and contradicts entirely the generally received opinion that it is a product of the brown coal formation, and also the theory of Dr. Feuchtwängers, that marine amber was a later deposit or formation than the terrestrial.

It is apparent that the gum of the amber trees flowed out as a viscid sap, to which all small objects, leaves, twigs, insects, etc., that came in contact with it adhered. Subsequent exudation covered these, and preserved them more perfectly than was possible by any other method. In this

way, vast numbers of insects were hermetically sealed up, over eight hundred species having been discovered, and many groups yet remaining to be studied.

These give us much interesting information in regard, not only to the insect life of the amber age, but also in regard to the history of many of our living groups and species. (See Heere's description of amber insects.) These species are now mostly extinct, but have affinity with tropical forms.

A very interesting collection of these ancient mummies can be seen in the British Museum; a classic spider is at Amherst, and in my own collection is a lizard, so perfectly embalmed that the animal tissues can be distinctly seen, as also the liquid contents of the stomach. This little curio has the honor of having been christened by Professor Agassiz.

Prof. H. R. Göppert has made a study of the remains of plants found in amber, and has identified one hundred and sixty-three species, all of which are now extinct. Mr. Kaldenberg of New York has specimens of amber containing bark, water, and various insects.

After mining, amber is kept temporarily in vaults near the amber localities. Rosa narrates that he entered one of the vaults of the Pächter Douglas, where he saw the yearly products, arranged according to their size and quality in chests and baskets, and saw records containing the yearly results back to 1500. The worth of the pieces varies according to the size and perfection.

For the trade it is divided into classes, the best pieces

being generally sent in the rough to Constantinople, where they are used for the mouth-pieces of pipes, as it is still believed there that amber possesses properties preventing contagion; and as the pipes of this ease-loving people are lighted by domestics, the amber tips to the long stems are considered a prudent caution. This trade with Constantinople is very ancient, and still continues over the same route as a thousand years ago. The smaller-sized pure pieces are used for beads, and the very impure for the distillation of succinic acid; the residue or refuse is the Colophonium succinic, employed in the preparation of varnish. The varnish made from amber has long been considered the finest, but other resins are now its rivals, and varied are the secrets of this prosperous trade. With amateurs at work all over the land, we may hope that even the secret of Stradivarius may yet come to light.

The chemical analyses of all resins, both fossil and recent, differ very slightly; certain varieties of amber, copal, mastic, etc., giving nearly the same atomic ratio, as will be seen from the following table.

Amber.	Carbon.	Hydrogen.	Oxygen.
	10	8	1
Retinite	12	9	1
Copal	10	9	1
Mastic	10	8	1
Eliminite	10	8	1
Fichtelite	8	6	1
Ambrite	16	13	1

The conclusion is, that their differences consist in the arrangement of their molecules, and not in their composition, or even age.

Amber may be distinguished from the other resins by its hardness, its lesser brittleness, and the much higher temperature required to reduce it, and also its greater electric action ; but the difference is quickly discovered in the attempt to cut and polish, as the ordinary resins become in the process so heated and softened as in a measure to prevent their use for ornamental purposes. Copal jewelry is, however, occasionally made, but soon loses its lustre.

A property of amber not generally known is its flexibility at certain temperatures. Formerly, when amber required bending, it was softened by placing it in warm linseed oil, and it could then be bent into any required form. For changing the form of amber, the method at present used in an extensive manufactory in New York is simply to hold the amber over a lamp, and draw it out slowly by hand.

Although this process is very tedious and difficult, the results are marvellous. A pipe-stem nineteen inches long has been in this manner drawn out of a coil of amber about six by four inches in size, or fifteen inches in circumference.

At the same factory can be seen the process of working amber, which, owing to its low degree of hardness, is wrought with the turning lathe, after having been cut with a knife and file into something approaching the form required. It is then

polished in the lathe, or by hand, with pumice-stone, whiting, and alcohol. The chippings and amber dust left from the cutting are used for varnish or incense.

The Orientals, especially the Chinese, consider the burning of the odoriferous amber the highest mark of respect possible to pay a stranger or distinguished guest, and the more they burn, the more marked is their expression of esteem.

We find in King's work on Gems, the following: "A large amber cup, holding half a pint, has lately been discovered deposited in a tumulus in Ireland, which, from its size, could hardly have been cut out of a single block of that substance. It has been ascertained that bits of amber boiled in turpentine can be reduced to a paste, reanimated, and moulded into any form desired."

In Feuchtwängers on Gems, we also find similar assertions regarding the melting and reforming of amber. Both King and Feuchtwängers are in error on this point. If amber were ever thus melted and moulded, the art has certainly been lost. Repeated experiments fail to produce such a result, although a recent German scientific journal informs us that a patent for such a discovery has been applied for.

An art so valuable, if successful, will surely secure a fortune to its inventor. But to account for the cup exhumed from the Irish tumulus it is not necessary to have recourse to any theory.

Alexander, Czar of all the Russias, owns a tea set cut from blocks of this precious material; and I have seen rough

specimens in both the Berlin and Vienna Museums larger than would have been required for the cup alluded to.

The imitations of amber are various. Glass paste is sometimes used ; another composition is of turpentine and caoutchouc ; still another, linseed oil, gum mastic, and litharge, to which finely powdered copal is added to give the appearance of veins. Add to this *ants of decalcomania*, and we have the material of the cigar-holders which so deceived the uninited during our Exhibition at Philadelphia.

The most perfect imitation is the uncolored celluloid. Abbé Haüy gives the following mode of detecting or identifying amber : "Attach a fragment to a knife, and when inflamed the amber will burn with some noise and ebullition, but without liquefying so as to flow, whereas all other resins and compositions melt and drop." A better method is perhaps the electrometer.

Very little amber has as yet been found in the United States. Gay Head, Martha's Vineyard, Camden, N. J., and Cape Sable only, are mentioned as its localities. A barrelful of small pieces was taken years ago from the greensand of New Jersey, which through some mistake was burned. Let us hope for the accident which may yet reveal to us hidden stores of this interesting substance, with a less primitive fate in reserve for it.

While the color of amber is generally yellow, it occurs in all shades from pure white to black. The Falernian, from the wine of that name, was the favorite color among the

Romans. Dice of the white variety are hardly distinguishable from ivory. At Constantinople, a pipe-stem of the milk-white variety is prized by the Turks at from forty to a hundred dollars. The action of sulphuric acid on the yellow changes it to red. A beautiful specimen of green amber has been found on the American coast.

"Black amber," which was a vexed question in the Middle Ages, returns to question us again to-day. Monsieur le Conte de Borch, in his letters from Sicily within the last decade, says that "black amber is common." Stretter, the latest English authority on Gems, also gives black amber; but a careful analysis of the black amber which has recently been imported from Spain to be manufactured in New York gives: Carbon, 82.57; Hydrogen, 7.70; Oxygen and Nitrogen, 9.08; Ash, 0.65.

A result so different from true amber, and on distillation yielding no succinic acid, is therefore not true amber, but either a superior variety of jet, or a highly oxidized bitumen. In chemical composition it seems to occupy an intermediate position between cannel coal and torbanite. Subjected to the microscope by Professor Julian of Columbia College, a woody fibre was visible, replaced in part by resin. Its electric power is great, and, admitting as it does of a remarkable polish, its lightness well adapts it for ornamental purposes.

As the cold, dreary portion of Germany where amber is principally found would have had little attention from the Southern peoples except for this valuable product, are we not

impelled to inquire respecting the influence of the amber trade on the development of civilization? For among the old accounts of journeyings in search of amber we find the first mention of the Teutons as a race. As the search for an "El Dorado" led to voyages of discovery in later times, so we find that voyages and pilgrimages to the land of amber were made, dating back to 1500 years before Christ.

Peschel says, "Preach aloud the fact that the migrations of nations depend on the existence of the substantial treasures of the earth." So this Prussian paradise had been visited by Pythias of Massilena, four hundred years before Christ; also by Theophrastus, the naturalist and philosopher, and by Philomen, the Greek poet. Nero sent there his Roman knights, who brought back quantities of amber to enrich his treasury; and a small image in this precious material was valued higher than a human slave.

Amber was intermingled with the myths and religion of the Greeks, their legends ascribing its origin to

"The sweet tears shed
By fair Heliades, — Apollo's daughters, —
When their rash brother down the welkin sped,
Lashing his father's sun-team, and fell dead
In Euxine waters."

Amber literature is of great interest to the virtuoso. Books in all languages refer to its many supposed qualities, and the insects contained in it have given rise to many quaint metaphors which still exist. Martial (A. D. 43) wrote

in Latin: "The bee is enclosed, and shines preserved in a tear of the sisters of Phaeton, so it seems enshrined in its own nectar. It has obtained a worthy reward for its great toils; we may suppose that the bee itself would have desired such a death."

Thomas May (1640) thus translates this: "Here shines a bee enclosed in an amber tomb, as if entombed in her own honeycomb. A fit reward fate to her labors gave; no other death would she have wished to have."

Hay, in the same century, translates it thus:—

"The bee inclosed, and through the amber shown,
Seems buried in a juice that was her own.
So honored was a life in labor spent,
Such might she wish to have her monument."

"Admire," says Claudian, "the tomb of a vile insect; no sovereign can boast one half so splendid."

"Non potuit tumulo nobiliore mori."

Sir John Denham (1640) wrote of streams,—

"Whose foam was amber, and whose gravel gold."

Eastern poets say that amber is a gum from the tears of certain consecrated sea-birds. To this fanciful origin Moore alludes in his "Araby's Daughter":—

"Around thee shall glisten the loveliest amber
That ever the sorrowing sea-bird hath wept,
And many a shell in whose hollow-wreathed chambers
We Peris of ocean by moonlight have slept."

Domitius Nero, among other extravagances, had in a poem called the hair of his wife, Poppæa, "amber-colored." This elegant name, given to red hair, brought the color into fashion; and every device was resorted to, even to the wearing of wigs, by the Roman ladies to give this amber-colored ornament to their heads, in lieu of their own natural dark locks.

In the *Nibelungen Lied*, we find Hagentrouze with his amber-colored girdle; the dragon's blood armor of Siegfried is also supposed to have been amber, and Brunhilde mentions the amber-colored flower.

Byron alludes to amber in the "Island," and Pope speaks of Sir Plume, "Of amber snuff-box justly vain." Also in his Prologue to the "Satires": —

"Pretty in amber to observe the forms
Of flies and ants and bees and bugs and worms;
The things we know are neither rich or rare,
But wonder how the De'il they got there."

Milton apostrophizes a bee in amber, and modern authors have written of the "Amber Witch" and of "Amber Gods," and to-day a "Lizard in Amber" is thus addressed.¹ . . .

So questions the poet, but if we might invoke this "ancient mariner" from out his crystal coffin, more serious would be the questions we would bid him solve.

But, though speechless, he bears a silent witness; for as

¹ This poem, having been written for the *Æsthetic Society*, is given complete at page 66, instead of only giving the quotation here.

one of the many hieroglyphics of the language of geology, underneath its Rosetta wand he helps to reveal the history of our earth. Thrice happy he, the gifted mortal, who, wielding this magic wand, can lift the veil, and translate these mystic symbols of the too long "dusky past"!

THE PETRIFIED FERN.¹

MERY L. BOLLES BRANCH.

From "Echoes of the Æsthetic Society."

IN a valley, centuries ago,
Grew a little fern-leaf green and slender,
Veining delicate and fibres tender,
Waving when the wind crept down so low.
Rushes tall, and moss, and grass grew round it ;
Playful sunbeams darted in and found it ;
Drops of dew stole down by night and crowned it ;
But no foot of man e'er came that way ; —
Earth was young and keeping holiday.

Monster fishes swam the silent main ;
Stately forests waved their giant branches ;
Mountains hurled their snowy avalanches ;
Mammoth creatures stalked across the plain.
Nature revelled in grand mysteries ;
But the little fern was not like these,
Did not number with the hills and trees,
Only grew and waved its sweet, wild way ;
No one came to note it day by day.

Earth, one time, put on a frolic mood,
Heaved the rocks, and changed the mighty motion
Of the strong, dread currents of the ocean ;
Moved the hills, and shook the haughty wood ;

¹ In the cabinet of Mrs. Erminnie A. Smith.

Crushed the little fern in soft, moist clay,
Covered it, and hid it safe away.
O the long, long centuries since the day !
O the changes ! O life's bitter cost,
Since the little useless fern was lost !

Useless? Lost? There came a thoughtful man,
Searching Nature's secrets far and deep ;
From a fissure in a rocky steep
He withdrew a stone, o'er which there ran
Fairy pencillings, a quaint design, —
Leafage, veining, fibres, clear and fine, —
And the fern's life lay in every line.
So, I think, God hides some souls away,
Sweetly to surprise us the last day.



THE SIGNIFICANCE OF FLORA TO THE IROQUOIS.

THERE are many circumstances which help to prove that in the distant past a certain large stock of Indians, either for their protection in establishing outposts for the acquisition of hunting facilities, or for other reasons, became so dispersed as finally to receive at least six different tribal names, and to speak the several dialects known as the Mohawk, the Oneida, the Onondaga, the Cayuga, the Seneca, and the Tuscarora. What may have been the original name of their mother tongue, if we may use that affectionate expression, we cannot yet decide. I see no reason why it may not have been their own appellation of themselves at the present time, a name which with slight dialectical differences of sound is common to them all, namely, "*Ho-ti-noñ-syoñ-nĩ*," or "Extended House," referring to their style of architecture and manner of living. Most writers upon the Iroquois, however, consider that name to date from a confederacy, reuniting this family, supposed to have been originated by the mythical Haiă-hwă't'-thă'.

From the easily distinguished resemblances between these dialects, the early French grouped them as the "Iroquois," a word supposed to mimic two very frequent endings common to all the different tribes. Under the system of Indian

nomenclature lately adopted by the Bureau of Ethnology, the term "Iroquoian" has been applied to this group. In a paper which I had the honor of reading before the American Association for the Advancement of Science some years ago, I endeavored to explain some of the *differences* between the dialects composing this group, and some probable causes of the same; but in this brief study I shall have occasion to note more particularly their marked *resemblances*, confining my examples within the limited scope of my subject.

In a list containing forty names of trees and plants, which I procured from each of the six tribes, more than half have the same name in each one of the dialects. The differing names are nearly all confined to the Seneca and Cayuga dialects.

Among the marked resemblances are the following:—

ENGLISH.	TUSCARORA.
Beam Tree	<i>Nă-rhă'-kwî.</i>
Beans	<i>U-Çă'-hă'-rhă, or Çă'-hă.</i>
Beech Tree	<i>U-tckăⁿrh'-hă.</i>
Corn	<i>U-năⁿhă.</i>
Cranberry	<i>Tu'ks'wăⁿ-năⁿ.</i>
Cypress	<i>U-nă'-tu'-yă.</i>
Hemlock	<i>U-năⁿ-ăť.</i>
Hops	<i>U-tăⁿ-tă.</i>
Mulberry	<i>Çhuⁿ-yăç.</i>
Raspberry	<i>Tsyu-tă'-kwă-kă'yăⁿ.</i>
Raspberry, Red	<i>U-nă'-tcu'-kwă.</i>
Rice	<i>U-nă'-tă.</i>

Spruce	<i>U-tcu'-ku-näⁿ'</i> ,
Tamarack	<i>Kă-năⁿ'-tⁿăç.</i>
Tobacco	<i>Tcărⁿh-hu'.</i>
White Pine	<i>U-năⁿ-tăⁿ'.</i>
White Cedar	<i>U-çu'-rhăⁿ'-tăⁿ'.</i>
Wild Cherry	<i>A'-rhî'.</i>
Winter Green	<i>Kă-nă-kăⁿ'să'-krhăç.</i>
Turnip	<i>U-bčî'-kwă.</i>

These then are pure Iroquoian words, souvenirs of pre-historic forests where the crack of a rifle was unheard and unknown, and of a time when special uses and qualities, fanciful ideas, or supposed resemblances, were the science of nomenclature.

Though unwritten, can this Iroquoian language properly be termed "prehistoric," when even its isolated words represent beautiful thoughts and images, and are in themselves a history, and representatives of the mode of thought in that distant age when they were spoken?

Let us decipher a few of these ancient words, and compare them with as many in English, and they will reveal to us at least the sameness in the underlying structure of languages, whether they be high up or low down on the rounds of the ladder of development.

To the native Iroquois the white ash was the bow tree, and the black ash the canoe tree, implying that from these two trees were fashioned those indispensable articles.

The elm tree was the symbol of grace, and happy the

Iroquoian maiden who in her childhood had drunk of its sap, and was therefore destined to be as stately.

The spruce was named from its erect cones ; the apple was the large fruit. The original meaning of the strawberry is unknown, but a pine-apple is now termed "large strawberry."

Water-melon translates "It sheds its blush," and muskmelon "Ripening fruit." Corn means seed, marking it as having been at some period their only agricultural product. This is further proven from the fact that corn has in the Iroquois a verb "to plant" of its own, which is in reality the name of the famous Cornplanter, the word "corn" not being present in that proper name. Wintergreen translates pleasant odor, and the word for cranberry imitates the sound which is made when picking this fruit.

We may not find in this nomenclature the poetry of many of our own floral names, such as "eyebright," "bluebell," "maidenhair," "lady's-slipper," and some others. But may there not be many Iroquoian words whose literal meanings are as beautiful, though now as unknown to those who use them as is Chaucer's "day's-eye" to many English speaking people who to-day find no sentiment in the word daisy?

We find in Iroquois many homonyms the explanations of which are very curious. Our dandelion Anglicized from the French *dent de lion* (lion's tooth), alluding to the shape of its petals, is in Tuscarora *Kă'-rhă*, and, coming simultaneously with the sturgeon, is said to announce its arrival, and is therefore called by the same name as that fish. Cor-

respondingly in English we have the "cuckoo-flower," so called because this orchis blossoms about the time that the cuckoo is first heard.

The Iroquois find a resemblance between the cucumber and the warty toad, and they have the same name; and the words for turnip and fist are alike.

Many homonyms in English arise in the same manner, from similar resemblances; for examples, *dock* is from the Icelandic *dockke*, a tail, to cut short, and dock is a tap-rooted plant, or plant with a tail; also *flag*, to grow weary, from moving to and fro; so *flag*, an ensign which moves in the wind, and *flag*, a plant from its waving motion.

The witch-hazel in Tuscarora is named from its pith, the alder from its lack of it. Oats in Mohawk are named from their drooping tendency, which reminds us of the poetical German name "golden rain," given to our drooping laburnum.

The quantities of blueberries growing upon the Alleghannies gave their name to those mountains. The word Erie is also Iroquoian, named from its being the locality where wild cherries abounded.

The reflection of the trees in the lake at Toronto gave that city the Iroquois name which it still bears. How familiar is this system of nomenclature to those interested in the origin of names!

Madeira was named by the Portuguese from its great forests; the classic name Peloponnesus was changed to Mo-

rea, from the resemblance of that region to the shape of a mulberry leaf, and the meaning of Florida is familiar to all.

The synonyms of the Iroquoian group probably date from their separation into tribes. Words occur among the different tribes which are radically different, but which have the same literal meaning. Thus, in Tuscarora a head of cabbage is *u-tă'-rhă'*, while in Mohawk the word *o-noñ'-tci* means literally the same thing, — head.

In Tuscarora *wăt-ă'-rhă''-ih-thă'*, signifying the poplar, translates literally, "its wings (its leaves) up and down," while in the Mohawk *wă-ne-ră-toñ'-thă* signifies the same thing.

That the Tuscarora name for the pear is quite modern, is amusingly apparent. The word for *bear* in that dialect is *u'-tci''-rhă''*; having no labials in Tuscarora, and mistaking the *p* for a *b*, thus supposing the English called the fruit a bear, they applied to it their own name for that animal, *u'-tci''-rhă''*.

The Iroquois appellations for flowers are often used for feminine proper names; as, *A-woñ-ne-oñt*, hanging flower; *Kă-tci'-tci'-stă-kwăst*, beautiful flower; while trees and their qualities often serve for masculine proper names. This practice of surnaming girls after flowers and beautiful objects is quite common to us, and is of very ancient date. But it is noticeable that in modern times more plants have been named after men than contrariwise. As the Gentian from

Gentius ; Dahlia after Dahl, a Swede who introduced its cultivation ; Fuchsia, named after Fuchs ; Magnolia after Magnol ; while the Camellia received its name from being introduced from Japan into Europe by Camellus, a Moravian Jesuit.

That an original name in Iroquois has often been transferred to other than the original object is verified by examples like the following :—

<i>U-năñ-çă</i>	. . . .	Potato in Tuscarora.
<i>O-noñ-să</i>	. . . .	Onion in Onondaga.
<i>Wî-săñt</i>	. . . .	Strawberry in Tuscarora.
<i>Wis</i>	. . . .	Plum in Onondaga.

Something corresponding to this is the case with the German word *tartuffle*, given to the potato on account of its resemblance to their tartoffle or truffle. They have since changed the *t* into a *k*, making *kartoffle*.

These analogies might be carried much further, if the subject were extended outside the chosen limit of Flora ; but I doubt if any other subject would be as fruitful in producing examples capable of comparing favorably with those selected from a language into whose treasury all civilized nations have lavished their contributions.

There was much in nature incomprehensible to the Iroquois mind, but not so were the forest trees. They were his guide, his friends and companions, and all vegetation served to supply so many of his wants that we find the six religious festivals of the Iroquois principally devoted to giving thanks for the maple, strawberry, green corn, bean, and squash,

calling them "Our life, our supporters," whilst tobacco was continually thrown upon the fire, that their prayers might ascend in its cloud of smoke.

The most striking metaphors of the Iroquoian orators were those in which they likened themselves to the forest trees. To a friend who called upon the great Oneida chief, *Skäⁿ-näⁿ'-doñ*, a short time before his death, he expressed himself thus: "I am an aged hemlock; the winds of a hundred winters have swept through my branches. I am dead at the top. The generation to which I belonged has run away and left me. Why I live, the Great Spirit knows. Pray to him that I may have patience to wait my appointed time to die."

A lady, who knew the fondness of the famous Red Jacket for children, inquired of him if he had any living, as she knew that several had been taken away. Fixing his eyes upon her with a mournful expression, he replied: "Red Jacket was once a great man, and in favor with the Great Spirit. He was a lofty pine among the smaller trees of the forest. But after years of glory he degraded himself by drinking the fire-water of the white man. The Great Spirit has looked upon him in anger, and his lightning has stripped the pine of its branches."

The early youth of this great orator was spent in the beautiful valley of the Genesee. There were his favorite hunting-grounds. There his memory loved to linger. During the strife of wars, and the more bitter strife of treaties, he

had indulged very little in his favorite pastime; but when a day of comparative quiet came, he took his gun and went forth in the hope of finding a deer. He had gone but a short distance when a clearing opened before him; the old man turned aside, and wandered in another direction, but soon came to a place where the white man was turning the earth up in dark furrows over a large field. It was then that he sat down upon a fallen oak and wept bitter tears, that the haunts of his youth were being despoiled of all that had rejoiced the heart of his childhood and manhood.

The medicinal properties of plants and roots were understood by the Iroquois, and although the knowledge was principally confined to the "medicine-men," we find in the myths many allusions to the wonderful cures produced by the use of even the simplest vegetable remedies.

The origin of medicine among the Tuscaroras was related to me as follows by Chief John Mountpleasant of the Bear clan: Once upon a time a sickly old man, covered with sores, entered an Indian village, where over each wigwam was placed the sign of the clan of its possessor; for instance, the beaver-skin denoting the Beaver clan; the deer-skin, the Deer clan. At each of these wigwams the old man applied for food and a night's lodging; but his repulsive appearance rendered him an object of scorn, and the Wolf and the Tortoise and the Heron had bidden the abject old man to pass on. At length, tired and weary, he arrived at a wigwam where a bear-skin betokened the clanship of its owner. This he found inhabited by a kind-hearted woman,

who immediately refreshed him with food, and spread out skins for his bed. Then she was instructed to go in search of certain herbs, which she prepared according to his directions, and through their efficacy he was soon healed. Then he commanded that she should treasure up this secret. A few days after, he sickened with a fever, and again commanded her to search for other herbs, and was again healed. This being many times repeated, he at last told his benefactress that his mission was accomplished, and that she was now endowed with all the secrets for curing disease in all its forms, and that before her wigwam should grow a hemlock tree, whose branches should reach high into the air above all others, to signify that her clan should increase and multiply, and that the bear should take precedence of all other clans.

The origin of medicine among the Senecas is as follows: Nearly two hundred years ago, a man went into the woods on a hunting expedition. He was quite alone. He camped out in a field, and was wakened in the night by the sound of singing and a noise like the beating of a drum. He could not sleep any more, so he arose and went in the direction of the sound. To his surprise, the place had all the appearance of being inhabited. On the one hand, there was a large squash vine with three squashes on it, and on the other, a hill of corn; and three ears of corn grew apart from all the others. He was unable to guess what it meant, but started off on his hunting once more, determined to return some evening, being both curious and uneasy. In the night, as he slept near by, he heard again a noise, and, awaking, saw

a man looking at him, who said, "Beware! I am after you. What you saw was sacred; you deserve to die." But the people, who now gathered around, said they would pardon it, and would tell him the secret they possessed. "The great medicine for wounds," said the man who had awakened him, "is squash and corn; come with me, and I will teach you."

He led him to the spot where the people were assembled, and there he saw a fire, and a laurel bush which looked like iron. The crowds danced around it, singing and rattling gourd shells, and he begged them to tell him what they did it for; then one of them heated a stick and thrust it right through his cheek, and then applied some of the medicine to prove to him how quickly it could heal the wound. Then they did the same to his leg. All the time they sang a tune, they called it the "medicine song," and taught it to him. Then he turned to go home, and all at once he perceived that they were not human beings, but animals, bears, beavers, and foxes, which all flew off as he looked. They had given him directions to take one stalk of corn and dry the cob and pound it very fine, and to take one squash and cut it up and pound that, and they then showed him how much for a dose. He was to take water from a running spring, and always from up the stream, and never down. He made up the prescription, and used it with very great success, and made enough before he died to last over one hundred years.

This was the origin of the great medicine of the Senecas. The people sing over its preparation every time the deer

changes his coat ; and when it is administered to a patient, they sing the "medicine song," while they rattle a gourd shell as accompaniment, and burn tobacco. Burning tobacco is the same as praying. In times of trouble or fear, after a bad dream, or any event which frightens them, they say, "My mother went out and burned tobacco."

The medicine is prepared now with the addition of meat.

Numerous are the Iroquois legends regarding the Flora surrounding them.

I will close with the origin of the pond lily from the Huron-Iroquois, to which Aldrich in poetizing has added, if possible, another tint.

Young Wă'-wăh had been killed in the war. Miăntowonă, his love, stoically heard of his death, and meekly continued her care of an aged father. But when the old man died, she wept not, and while the mourners were chanting the dirges she stole from among them toward the bright water ; but Nă-hă'-ho, who had long loved her in secret, quickly pursued her to the river bank :—

"What did he see there
Could so appall him?
Only a circle
Swiftly expanding,
Fading before him.
But as he watched it,
Up from the centre
Slowly, superbly,
Rose a Pond Lily."

NEW-YEAR GREETING.

REV. PHEBE A. HANNAFORD.

From "Echoes of the Æsthetic Society."

THE morning broke bright as an angel's pinion,
The winter diamonds sparkled on the boughs,
We, who had feared the storm-king's dark dominion,
Smiled at our dread, and lifted heavenward brows
Serene as starlight, hopeful on that morning
For all events that to our lot should come
When the new year that thus so bright was dawning
Should be with us for twelve long months at home.

We hoped, nor hoped amiss, that eighteen-eighty
Would far outstrip the joys of seventy-nine ;
And did we not reach this conclusion weighty,
That we would patient be, nor once repine?
Though storms should come, we 'd look for sunny weather
When from our paths the mists should roll away,
And trust th' unfailing love of that All-Father
Who sees in shadow more than we by day.

Then as we gave to those frost-jewels fleeting
Our admiration, and our welcome too,
So let me give to these Æsthetics greeting,
Who blaze with genius, beam in friendship true.
Here, where we read a truth that needs no proving,
We 've sought to learn of Nature's works and ways,
Our knowledge leading to a deeper loving
Of Him whose thought expression finds in these

Strange forms of rock from distant vale and mountain,
Symmetric crystals from the quarry's heart :
A chalice each, with draughts from wisdom's fountain,
We quaff with eagerness ; for they impart
The life-elixir that the spirit needeth,
The panacea for many an earthly woe,
The knowledge that, once gained, the spirit speedeth
Still more and more of God's great works to know.

Surely the new year opens with a gladness
The spiritually wise alone can know,
When, as a balm for all the old year's sadness
We upward look, and see the morning glow
Which faith affords, as we, His works beholding,
God's wondrous power and equal goodness see,
Which tell, while His grand purpose is unfolding,
How firm in His great love our trust may be.

Then blessings on the kind and wise provider
Of feasts so welcome for both heart and mind,
Who bids us sit in wondering trust beside her,
And, listening here, a pure enjoyment find.
"A thousandth part we know not of the wonders,"¹
The Infinite alone can know them all !
But louder than the cataract's echoing thunders,
We hear, through her, the wonder-worker's call ;

And we will study through the coming seasons,
Of rock and shell, of gem and fern and flower,
With hope that as we question Nature's reasons,
Her why and wherefore shall be beauty's dower,

¹ Referring to an inscription over one of the mineral cabinets.

To make us fair in spirit, e'er reflecting
The mind of Him who mirrored love divine,
Till the great glory which we were expecting
In Life's grand new-year round our path shall shine.

Then will those object-lessons still be given
To students who are veiled in flesh no more,
While music sounds amid the bliss of heaven,
Whose echoes sweet oft reach this earthly shore ;
And there, we trust, this band will yet assemble,
Teacher and taught, within that city's wall
Whose flashing gems she told us but resemble
The glorious attributes of Him we call

Both God and Father, in His Son revealing
The Sovereign and the Sire ! till we obey,
His love our summons, till we, reverent kneeling,
Gladly resign ourselves to His dear sway.
Then shall we hail Eternity's glad morning,
The new-year that shall break beyond the tomb,
The untold, unknown gladness of that dawning
That knows no more bereavement's night of gloom.

Then shall we range the universe of glory,
Turn the great pages of creation o'er,
Soar 'mid the stars and list their wondrous story,
The Elder Scriptures not unread before :
And ever as we rise new wisdom gaining,
The Gospel-spirit we shall make our own,
The loftiest truth behold, — our crown attaining, —
Love amid law, — the Lamb amidst the throne.

"STILL ACHIEVING."

BY WILL CARLETON.

Written for this Memorial.

SHE walked upon the mountain-tops
Until her day was done ;
To earth the wearied body drops ;
But that great soul no longer stops,
Than does the setting sun.

SUMMERVILLE, S. C., May 2, 1890.

MY DEAR MRS. LEE, — Thank you for writing the letter which was forwarded to me through the kindness of my friend, Mrs. Olive Thorne Miller. Mrs. Smith was worthy better tribute than any of us can offer her, and our best attempts do but mock the feeling which we who loved and admired her cherish for her memory.

In the Meridian Club, of which we were fellow members, I said a few awkward but deeply sincere words, one day, in memory of her ; but not being aware until entering the room that the hour was to be devoted to talk of her, I did not do my heart justice. Again, in Sorosis, I was asked to write a poem to read on "Science Day" following her death, as that day was to be given up to memories of her, and tributes to her virtues and graces. The verses were afterward printed in the Boston "Woman's Journal," I think in a letter of Kate Sanborn's.

When your letter came, my brain seemed so numb with ceaseless and overwhelming anxiety, that it seemed useless to attempt to spur it into any sort of exertion. I think of nothing, know nothing, but the dear and only child whose life depends upon our watchful care, and who has not improved as we had hoped and expected under Florida skies. Shall I tell you what warmed heart and brain to the effect of writing some brief tribute to this sweet and dear dead friend ? It was the memory of the last time I saw her face, when she had brought with her from Jersey City to the Brunswick Hotel, where our Meridian Club met, a box of heavy minerals for my dear Clare, because "she had promised them," and she "would not for the world disappoint a child" ! How the tears come as I remember that action and her white face ! for she was even then very near that grave which to-day enfolds her.

My time is much broken and absorbed, and only a little can be snatched, now and then, to write ; but will try to do it when the rest are asleep. For I am often so restless, so anxious, so feverish with dread and apprehension, that I cannot sleep until far into the morning. This is Friday noon, it may not be possible to send the verses before Sunday night ; but I think I can promise to do so then, and wish my pen were tipped with eloquence to say what I would have it !

Meanwhile, rejoicing in the beautiful wreath you have undertaken to weave, and thanking you for permitting me to add my poor leaf, believe me, my dear Mrs. Lee,

Very sincerely yours,

MAY RILEY SMITH.

This letter is so appreciative of one of "our dear dead friend's" beautiful traits of character, in considering a promise to be sacred, though given only to a child, and so eloquent with gratitude to the woman "who would not for the world disappoint" one of these little ones, that I trust the writer will accept my apology for not first seeking her permission (occasioned by lack of time), and will pardon the publishing here of what was a private letter ; but this prose of a gifted poet, which is in itself a poem, should be entwined in this wreath.

S. L. L.

IN MEMORIAM.

BY MAY RILEY SMITH.

Written for this Memorial.

O WHAT, grim Death, hadst thou to do with her?
Thou hast no friend ; for even Misery
Doth hide her face and shudder back from thee ;
In all the world thou hast no worshipper.

Each host doth greet thy face with sullen fears ;
And when at length thou turnest from his roof,
And at his gate thy pale steed lifts his hoof,
The stirrup-cup is brimmed with bitter tears.

What, niggard host, had she to do with thee,
Whose narrow house admits one prostrate guest,
Whose grassy paths thy tenants ne'er have pressed,
And past whose doors the frightened children flee ?

The wide rooms of her hospitable heart
Gave to its eager guests such royal fare,
That of the company she summoned there
Not one who entered ever did depart.

And now, while our warm tear-drops fall like rain
On the low hut where death hath laid her prone,
We say, "Until this hour, when was it known
That one who loved her tried her latch in vain ?"

O thou marauder, Death ! thy anodyne
Hath drugged a regal brain, at whose rich inn
Full many a good and noble guest hath been
To share its feast, and taste its matchless wine !

And yet we wrong thee with our foolish breath.
For it was thou who led her to that shore
Where thou canst never touch or harm her more,
And thou didst give her *Life*, whose name is Death !

HOW FAIR SHE IS.

BY HILLARY BELL.

Written for this Memorial.

HOW fair she is, we know not. Nor shall know
When all the seeds she scattered are in blow.
She wandered hidden paths, down separate ways,
Whereto we followed slowly, in amaze
To note the desert bloom beneath her tread,
And vacant minds by her inhabited.
The reaping was not hers ; but hers to sow
The harvest that in after days shall show
How fair she is.

Yet we, with whom the kindlier memories flow
Of that unselfish friendship which we owe,
Shall hold our truer knowledge but begun
Till God's calm angel, standing near the sun,
Uplifts his wings to teach us in the glow
How fair she is.

TO ERMINNIE A. SMITH.

BY MARY E. BRYAN.

Written for this Memorial.

SPRING comes to wake the Earth from Winter's sadness,
To quicken too, our memory of One
Whose Spirit of electric life and gladness
Shone on us with an influence like the sun.

A Spirit that Death's cloud too quickly shaded,
Though but to us it suffered an eclipse ;
For us — awhile — thy tender smile has faded,
And hushed the music of thy eloquent lips.

A soul like thine we know must be eternal,
Strong to inspire, and quick to thrill and warm ;
It still must live — whether on shores supernal,
Or re-incarnate in some noble form —

We cannot know ; our souls thrill with emotion
And yearnings high ; yet lie we on Time's shore,
Shut in this mortal shell, while the great ocean
Of Mystery pulses round us evermore.

But even here thy Spirit is immortal :
It echoes like sweet music through our days ;
It beckons to us from some mystic portal,
Through which stream on us clearer, purer rays.

It still sounds for us the key-note of thy spirit, —
 Love for *all* things, — love, strong to help and save ;
Love even for the sad races that inherit
 Defeat and shame, far by the Western wave !

O deathless soul of love and fire and beauty, —
 Who faded from our sight one day in spring,
As that sad day rolls round, our loving duty
 Bids us dear memories and fresh flowers to bring

Votive to thee ! the thought of thee comes o'er us
 Sweet as a breath of perfume mixed with song
Blown from some tropic island where a chorus
 Of song and sweetness breathes the whole year long, —

And all life's little cares fade in a vision
 Of vast wide splendor, safe from all eclipse ;
Where bright we see thy face in light elysian,
 And catch the smile of thy sweet, tender lips.

“BECAUSE” . . . THOU ART.

BY MARGARET E. SANGSTER.

Written for this Memorial.

BECAUSE, dear friend, you were so sweet and strong,
So tender, so benignant, and so true,
So tolerant to all except the wrong,
So wise to win, so fearless to pursue
The dangerous quest, if science, learning, art,
Allured or dared your peerless woman's heart,

Because of *what* you were, we count you still
A presence in our lives. You *are* to-day!
You animate in us the conquering will,
Your thought from ours is never far away.
How can we scatter flowers upon your grave?
You, living ever, strong and sweet and brave.

